



FOOD & BEVERAGE MATRIX MATERIALS



FOOD & BEVERAGE MATRIX MATERIALS

LGC provides a range of reference materials (RMs) to help food and beverage providers meet international requirements and ensure consistent product quality and safety.

This catalog lists a small sample of the difficult-to-find RMs that we provide including matrix materials, spiked matrices, incurred matrices, toxins, allergens, bacteria and veterinary drugs. Many others are available.

In addition, our Dr. Ehrenstorfer product range encompasses thousands of standards for residue analysis for pesticides, stable isotopes, drugs, pharmaceuticals and more as neat and in solution.

Our product offering is regularly updated so that we may offer you the RMs and standards you need to deliver safe products to your customers. Find your standard at [lgcstandards.com/foodandenvironment](https://www.lgcstandards.com/foodandenvironment).

We are here to help.

Email: lgcusa@lgcstandards.com

Online: [lgcstandards.com](https://www.lgcstandards.com)

Phone: +1 603 622 7660



CONTENTS

Table of contents

Introduction

Food matrix reference materials

Cereal and Crops

Rye	1
Wheat	1
Maize	2
Vegetable oils	8
Fruit and vegetables	11
Soy	17
Rapeseed	18
Rice	18
Fish and shellfish products	20
Meat and meat products	36
Milk and dairy products	42
Food packaging	48
Food oils	49
Food authenticity and speciation	54
Animal feed	56
Food supplements	58
Drinks and alcoholic beverages	61
Processed Foods	65

Veterinary residues

Commonly tested compounds	72
---------------------------	----

Allergen reference materials	81
------------------------------	----

Mycotoxins

Single compounds	83
Multicomponent standard solutions	87
Mycotoxin matrix reference materials	88
Ergot alkaloids single compounds	89

Marine Biotoxins	90
------------------	----



CONTENTS

Table of contents continued

Easi-tab™ food and water microbiology reference materials

Food microbiology enumeration tests	91
Food microbiology detection tests	91
Water microbiology enumeration and or detection	92
Sterile materials	92

How to order on our Webshop

An up to date listing of all products is available on the LGC website lgcstandards.com.

Once registered, you can use the website to order products, check delivery times and access a range of resources for a wide variety of sectors.

LGC's technical staff is available to advise on the use and suitability of a particular product. Customers requiring assistance with the use or application of a particular reference substance should contact their local office.

For our latest product offering, check out our continually updated online catalog.



Cereal and crops

Rye

Code	Product	Unit
ERM-BC381	Rye flour - Proximates and essential elements	vial
	One unit contains about 37 g of rye flour filled under argon in a 100 mL amber glass vial.	
	Certified value	Uncertainty
	Kjeldahl nitrogen.....	1.562 g/100 g..... 0.014 g/100 g
	Total fat.....	1.36 g/100 g..... 0.16 g/100 g
	Ash.....	1.08 g/100 g..... 0.11 g/100 g
	Starch.....	72.2 g/100 g..... 1.9 g/100 g
	K.....	3.35 mg/g..... 0.11 mg/g
	Mg.....	0.567 mg/g..... 0.013 mg/g
	Ca.....	0.32 mg/g..... 0.04 mg/g
	P.....	2.01 mg/g..... 0.07 mg/g

Wheat

Code	Product	Unit
BCR-396	Wheat flour - Deoxynivalenol (DON) blank	150 g
	Certified value	
	Deoxynivalenol.....	<0.05 mg/kg
BCR-471	Wheat - Ochratoxin A (blank)	55 g
	Certified value	
	Ochratoxin A.....	< 0.6 mg/kg
ERM-BC210	Wheat flour - Total Selenium & Selenomethionine	15 g
	Certified values	
	Total selenium.....	17.23 mg/kg
	Selenomethionine.....	27.4 mg/kg
ERM-BC382	Wheat flour - Proximates and essential elements	vial
	One unit contains about 37 g of wheat flour filled under argon in 100 mL amber glass vials.	
	Certified value	Uncertainty
	Kjeldahl nitrogen.....	1.851 g/100 g..... 0.017 g/100 g
	Total fat.....	1.39 g/100 g..... 0.17 g/100 g
	Ash.....	0.60 g/100 g..... 0.10 g/100 g
	Starch.....	81.2 g/100 g..... 1.7 g/100 g
	K.....	1.88 mg/g..... 0.08 mg/g
	Mg.....	0.247 mg/g..... 0.010 mg/g

Cereal and crops

	Ca.....	0.210 mg/g.....	0.018 mg/g
	P.....	1.19 mg/g.....	0.07 mg/g
ERM-BC600	Wheat flour - Fusarium mycotoxins		81 g
	Certified values		
	Deoxynivalenol (DON).....	102 ± 11 µg/kg	
	Nivalenol (NIV).....	1000 ± 130 µg/kg	
	Zearalenone (ZON).....	90 ± 8 µg/kg	
NIST-1567B	Wheat flour - Trace elements		50 g
NIST-RM 8441a	Wheat - Hardness		Set of 50 x 20 g
	Determination of hardness of bulk or single kernel wheat. Ten separate lots of wheat of varying hardness. Five samples of each wheat .		

Maize

Code	Product	Unit	
BCR-377	Maize flour - Deoxynivalenol (blank)	150 g	
	Certified value		
	Deoxynivalenol.....	<0.05 mg/kg	
ERM-BC716	Maize - very low level ZON (+4 degrees)	60 g	
	Compound	Certified value	
	Zearalenone.....	<5 µg/kg	
ERM-BC717	Maize Powder – Mycotoxins	60 g	
	Compound	Certified value	Uncertainty
	Zearalenone.....	83 µg/kg	9 µg/kg
ERM-BF411A	Genetically Modified Bt-176 Maize (0%)	1 g	
	Certified value g/kg	Uncertainty	
	Bt-176 maize content.....	< 0.14	
ERM-BF411B	Genetically Modified Bt-176 Maize (0.1%)	1 g	
	Certified value g/kg	Uncertainty g/kg	
	Bt-176 maize content.....	1	0.29
ERM-BF411C	Genetically Modified Bt-176 Maize (0.5%)	1 g	
	Certified value g/kg	Uncertainty g/kg	
	Bt-176 maize content.....	5	0.6
ERM-BF411D	Genetically Modified Bt-176 Maize (1%)	1 g	
	Certified value g/kg	Uncertainty g/kg	
	Bt-176 maize content.....	10	0.8

Cereal and crops

ERM-BF411E	Genetically Modified Bt-176 Maize (2%)		1 g
		Certified value g/kg	Uncertainty g/kg
	Bt-176 maize content.....	20	1.1
ERM-BF411F	Genetically Modified Bt-176 Maize (5%)		1 g
		Certified value g/kg	Uncertainty g/kg
	Bt-176 maize content.....	50	1.8
ERM-BF412A	Genetically Modified Bt-11 Maize (0%)		1 g
		Certified value g/kg	
	Bt-11 maize content.....	< 0.12	
ERM-BF412B	Genetically Modified Bt-11 Maize (0.1%)		1 g
		Certified value g/kg	Uncertainty g/kg
	Bt-11 maize content.....	0.98	0.29
ERM-BF412C	Genetically Modified Bt-11 Maize (0.5%)		1 g
		Certified value g/kg	Uncertainty g/kg
	Bt-11 maize content.....	4.9	0.6
ERM-BF412D	Genetically Modified Bt-11 Maize (1%)		1 g
		Certified value g/kg	Uncertainty g/kg
	Bt-11 maize content.....	9.8	0.9
ERM-BF412E	Genetically Modified Bt-11 Maize (2%)		1 g
		Certified value g/kg	Uncertainty g/kg
	Bt-11 maize content.....	19.6	1.3
ERM-BF413AK	Genetically modified MON-810 maize powder (blank)		1 g
		Certified value g/kg	
	MON 810 maize mass fraction.....	< 0.9	
ERM-BF413CK	Genetically modified MON-810 maize powder (0.5%)		1 g
		Certified value g/kg	Uncertainty g/kg
	MON 810 maize mass fraction.....	4.9	1
ERM-BF413EK	Genetically modified MON-810 maize powder (2%)		1 g
		Certified value	Uncertainty
	MON 810 maize mass fraction.....	19.8 g/kg	1.5 g/kg
	MON 810 maize DNA copy number ratio	0.77%	0.08%
ERM-BF413GK	Genetically modified MON-810 maize powder (10%)		1 g
		Certified value g/kg	Uncertainty g/kg
	MON 810 maize mass fraction.....	99	5

Cereal and crops

ERM-BF414A	Genetically modified GA21 Maize (0%)	Certified value g/kg	vial
	GA21 maize content.....	< 0.8	
ERM-BF414B	Genetically modified GA21 Maize (0.1%)	Certified value g/kg	Uncertainty g/kg
	GA21 maize content.....	1	0.8
ERM-BF414C	Genetically modified GA21 Maize (0.5%)	Certified value g/kg	Uncertainty g/kg
	GA21 maize content.....	4.9	1
ERM-BF414D	Genetically modified GA21 Maize (1%)	Certified value g/kg	Uncertainty g/kg
	GA21 maize content.....	9.9	1.1
ERM-BF414E	Genetically modified GA21 Maize (2%)	Certified value g/kg	Uncertainty g/kg
	GA21 maize content.....	17.2	1.2
ERM-BF414F	Genetically modified GA21 Maize (5%)	Certified value g/kg	Uncertainty g/kg
	GA21 maize content.....	42.9	1.7
ERM-BF415A	Genetically modified NK603 Maize (0%)	Certified value g/kg	vial
	NK603 maize content	< 0.4	
ERM-BF415B	Genetically modified NK603 Maize (0.1%)	Certified value g/kg	Uncertainty g/kg
	NK603 maize content.....	1	0.4
ERM-BF415C	Genetically modified NK603 Maize (0.5%)	Certified value g/kg	Uncertainty
	NK603 maize content.....	4.9	0.5
ERM-BF415D	Genetically modified NK603 Maize (1%)	Certified value g/kg	Uncertainty g/kg
	NK603 maize content.....	0.7	9.8
ERM-BF415E	Genetically modified NK603 Maize (2%)	Certified value	Uncertainty g/kg
	NK603 maize content.....	19.6 g/kg	0.9 g/kg
	NK603 maize DNS copy number ratio..	0.95%	0.11%

Cereal and crops

ERM-BF415F	Genetically modified NK603 Maize (5%)	vial	
	Certified value g/kg NK603 maize content.....	49.1	Uncertainty g/kg 1.3
ERM-BF416A	Genetically modified MON 863 Maize (0%)	vial	
	Certified value ¹ g/kg MON 863 Maize.....	< 1.0	
1) No contamination was detected in the non-GM material when applying event-specific MON 863 realtime PCR with a detection limit of 0.8 g / kg. With a confidence level of 95 % the MON 863 mass fraction is below the certified value.			
ERM-BF416B	Genetically modified MON 863 Maize (0.1%)	vial	
	Certified value g/kg MON 863 Maize.....	1	Uncertainty g/kg -0.3 ; +1.0
ERM-BF416C	Genetically modified MON 863 Maize (1%)	vial	
	Certified value g/kg MON 863 Maize.....	9.8	Uncertainty g/kg -0.7 ; +1.2
ERM-BF416D	Genetically modified MON 863 Maize (10%)	vial	
	Certified value g/kg MON 863 Maize.....	98.5	Uncertainty g/kg -2.2 ; +2.5
ERM-BF417A	Stacked Genetically modified MON 863 x MON 810 Maize	vial	
	Certified value ¹ g/kg MON 863 x MON 810 Maize.....	< 1.0	
1) No contamination was detected in the non-GM material when applying event-specific MON 863 real-time PCR with a detection limit of 0.8 g/kg and no contamination was detected when applying event-specific MON 810 real- time PCR with a detection limit of 1.1g /kg. With a confidence level of 95 % the MON 863 x MON 810 maize mass fraction is below the certified value.			
ERM-BF417B	Stacked Genetically modified MON 863 x MON 810 Maize	vial	
	Certified value g/kg MON 863 x MON 810 Maize.....	1	Uncertainty g/kg -0.2 ; +1.0
ERM-BF417C	Stacked Genetically modified MON 863 x MON 810 Maize	vial	
	Certified value g/kg MON 863 x MON 810 Maize.....	9.8	Uncertainty g/kg -0.7 ; +1.2
ERM-BF417D	Stacked Genetically modified MON 863 x MON 810 Maize	vial	
	Certified value g/kg MON 863 x MON 810 Maize.....	98.5	Uncertainty g/kg -2.0 ; +2.4
ERM-BF418A	Genetically modified 1507 Maize (0%)	vial	
	Certified value ¹ g/kg 1507 maize.....	< 0.5	

Cereal and crops

	1) No contamination was detected in the non-GM material when applying event-specific 1507 real-time PCR with a detection limit of 0.4 g/kg. With a confidence level of 95 % the 1507 maize mass fraction is below the certified value.		
ERM-BF418B	Genetically modified 1507 Maize (0.1%)		vial
	Certified value g/kg	Uncertainty g/kg	
	1507 maize.....	1	-0.2; +0.6
	Genetically modified 1507 Maize (1%)		vial
	Certified value g/kg	Uncertainty g/kg	
	1507 maize.....	9.9	-0.6; +0.8
ERM-BF418D	Genetically modified 1507 Maize (10%)		vial
	Certified value g/kg	Uncertainty g/kg	
	1507 maize.....	98.6	-1.7; +2.0
ERM-BF420A	Genetically modified 3272 Maize (0%)		vial
	Certified value g/kg		
	Event 3272 maize.....	< 1.3	
ERM-BF420B	Genetically modified 3272 Maize (1%)		vial
	Certified value g/kg	Uncertainty g/kg	
	Event 3272 maize.....	9.8	1.2
ERM-BF420C	Genetically modified 3272 Maize (10%)		vial
	Certified value g/kg	Uncertainty g/kg	
	Event 3272 maize.....	98	8
ERM-BF423A	Genetically modified MIR604 Maize (0%)		vial
	Certified value ¹ g/kg		
	MIR604 maize.....	< 0.9	
	1) No contamination was detected in the non-GM material when applying event-specific MIR604 real-time PCR with a detection limit of 0.8 g/kg. With a confidence level of 95 % the MIR604 maize mass fraction is below the certified value.		
ERM-BF423B	Genetically modified MIR604 Maize (0.1%)		vial
	Certified value g/kg	Uncertainty g/kg	
	MIR604 maize.....	1	-0.3; +1.0
ERM-BF423C	Genetically modified MIR604 Maize (1%)		vial
	Certified value g/kg	Uncertainty g/kg	
	MIR604 maize.....	9.8	-0.9; +1.3
ERM-BF423D	Genetically modified MIR604 Maize (10%)		vial
	Certified value g/kg	Uncertainty g/kg	
	MIR604 maize.....	98.5	-2.6; +2.9
ERM-BF424A	Genetically modified 59122 Maize (0%)		vial
	Certified value ¹ g/kg		
	59122 maize.....	< 1.2	

Cereal and crops

	1) No contamination was detected in the non-GM material when applying event-specific 59122 real-time PCR with a detection limit of 1.0 g/kg. With a confidence level of 95 % the 59122 maize mass fraction is below the certified limit value. The certified value is traceable to the SI.		
ERM-BF424B	Genetically modified 59122 Maize (0.1%)		vial
		Certified value g/kg	Uncertainty g/kg
	59122 maize.....	1	-0.2; +1.2
ERM-BF424C	Genetically modified 59122 Maize (1%)		vial
		Certified value g/kg	Uncertainty g/kg
	59122 maize.....	9.9	-0.8; +1.4
ERM-BF424D	Genetically modified 59122 Maize (10%)		vial
		Certified value g/kg	Uncertainty g/kg
	59122 maize.....	98.7	-5.8; +5.9
ERM-BF427A	Genetically modified 98140 Maize seed (blank)		vial
		Certified value g/kg	
	98140 Maize.....	< 0.4	
ERM-BF427B	Genetically modified 98140 Maize seed (0.5%)		vial
		Certified value g/kg	Uncertainty g/kg
	98140 Maize.....	5	0.6
ERM-BF427C	Genetically modified 98140 Maize seed (2%)		vial
		Certified value	Uncertainty
	98140 Maize.....	20 g/kg	0.8 g/kg
	98140 Maize DNA copy number ratio..	1.75%	0.13%
ERM-BF427D	Genetically modified 98140 Maize seed (10%)		vial
		Certified value g/kg	Uncertainty g/kg
	98140 Maize.....	100	4
ERM-BF433A	DAS-40278-9 Maize (blank)		vial
		Certified value g/kg	
	DAS-40278-9 maize.....	<0.3	
ERM-BF433B	DAS-40278-9 Maize (nominal 0.5% GMO)		vial
		Certified value g/kg	Uncertainty g/kg
	DAS-40278-9 maize.....	5	0.6
ERM-BF433C	DAS-40278-9 Maize (nominal 1% GMO)		vial
		Certified value g/kg	Uncertainty g/kg
	DAS-40278-9 maize.....	10	0.9
ERM-BF433D	DAS-40278-9 Maize (nominal 10% GMO)		vial
		Certified value g/kg	Uncertainty g/kg
	DAS-40278-9 maize.....	100	8

Vegetable oils

Code	Product				Unit
BCR-162R	Soya-maize oil blend - Fatty acids				5.5 g
	Certified values				
	Fatty acid		Relative Mass Fraction in g		
	FAME / 100 g total FAME				
	16:0 (n-Hexadecanoic acid).....		10.74 ± 0.16		
	18:0 (n-Octadecanoic acid).....		2.82 ± 0.04		
	9c-18:1 (n-Octadecenoic acid)		25.4 ± 0.4		
	9c,12c-18:2 (n-Octadecadienoic acid).....		54.13 ± 0.25		
9c,12c,15c-18:3 (n-Octadecatrienoic acid).....		3.35 ± 0.05			
BCR-446	Rapeseed - Oil content (low)				153 g
	Certified values				
	“As is” oil 39.49 g/100 g				
	Moisture and volatiles..... 7.01 g/100 g				
	Dry basis oil..... 42.48 g/100 g				
BCR-459	Coconut oil - PAHs (blank)				45 g
	Compound	Certified value	Compound	Certified value	
		µg/kg		µg/kg	
	Pyrene.....	<0.9	Benzo(a)pyrene.....	<0.3	
	Chrysene.....	<0.6	Benzo(ghi)perylene...	<0.2	
	Benzo(k)fluoranthene...	<0.2	Indeno(1,2,3-cd)pyrene	<0.2	
NIST-3274	Botanical oils - Omega-3 and omega-6 fatty acids				4 x 1.2 mL
	This Standard Reference Material® (SRM®) is intended primarily for use in validating analytical methods for the determination of fatty acids in botanical oils and similar matrices. This SRM can also be used for quality assurance when assigning values to in-house control materials. A unit of SRM 3274 consists of a total of four ampoules, one each of four seed oils (3274-1 Borage [Borago officinalis], 3274-2 Evening Primrose [Oenothera biennis], 3274-3 Flax [Linium usitatissimum], and 3274-4 Perilla [Perilla frutescens]). Each ampoule contains approximately 1.2 mL of oil under argon.				
			Mass fraction (mg/g)		
		3274-1	3274-2	3274-3	3274-4
		Borage	Evening Primrose	Flax	Perilla
	Octanoic Acid (C8:0) (Caprylic Acid)		(0.053 ± 0.010)		(0.021 ± 0.002)
	Decanoic Acid (C10:0) (Capric Acid)				(0.020 ± 0.011)
	Dodecanoic Acid (C12:0) (Lauric Acid)				(0.016 ± 0.001)
	Tetradecanoic Acid (C14:0)	(0.62 ± 0.11)	0.363 ± 0.030	0.271 ± 0.008	(0.206 ± 0.025)
	(Myristic Acid)				

Vegetable oils

Pentadecanoic Acid (C15:0)	0.074 ± 0.008	0.099 ± 0.011	0.151 ± 0.016	(0.061 ± 0.009)
Hexadecanoic Acid (C16:0) (Palmitic Acid)	110 ± 12	58.2 ± 6.1	44.8 ± 5.0	56.4 ± 5.5
(Z)-9-Hexadecenoic Acid (C16:1 n-7) (Palmitoleic Acid)	1.77 ± 0.14	0.402 ± 0.043	0.383 ± 0.031	0.776 ± 0.081
Heptadecanoic Acid (C17:0) (Margaric Acid)	(0.500 ± 0.086)	(0.188 ± 0.008)	(0.212 ± 0.011)	(0.159 ± 0.040)
Octadecanoic Acid (C18:0) (Stearic Acid)	(33.1 ± 4.0)	18.30 ± 0.838	30.4 ± 2.4	20.9 ± 1.1
(Z)-9-Octadecenoic Acid (C18:1 n-9) (Oleic Acid)	148.7 ± 8.7	68.9 ± 3.7	165.7 ± 6.2	166.8 ± 7.8
(E)-9-Octadecenoic Acid (t-C18:1 n-9) (Elaidic Acid)	(0.117 ± 0.020)			
(Z)-11-Octadecenoic Acid (C18:1 n-7) (Vaccenic Acid)	5.76 ± 0.18	5.95 ± 0.37	(5.61 ± 0.16)	(7.89 ± 0.22)
(Z,Z)-9,12-Octadecadienoic Acid (C18:2 n-6) (Linoleic Acid)	374 ± 35	742 ± 24	171 ± 11	160 ± 14
(Z,Z,Z)-9,12,15-Octadecatrienoic Acid (C18:3 n-3) (α -Linolenic Acid)	(3.45 ± 0.63)	(2.72 ± 0.51)	579 ± 30	629 ± 28
(Z,Z,Z)-6,9,12-Octadecatrienoic Acid (C18:3 n-6) (γ -Linolenic Acid)	251 ± 24	99.9 ± 4.1	(1.55 ± 0.25)	(2.08 ± 0.48)
Eicosanoic Acid (C20:0) (Arachidic Acid)	(2.13 ± 0.46)	(2.71 ± 0.37)	(1.04 ± 0.15)	(1.21 ± 0.26)
(Z)-11-Eicosenoic Acid (C20:1 n-9) (Gondoic Acid)		1.84 ± 0.12		
(Z,Z,Z,Z)-5,8,11,14-Eicosatetraenoic Acid (C20:4 n-6) (Arachidonic Acid)		(0.022 ± 0.002)	0.633 ± 0.029	
Heneicosanoic Acid (C21:0)	(2.36 ± 0.32)	(0.132 ± 0.029)		(0.083 ± 0.004)
Docosanoic Acid (C22:0) (Behenic Acid)	1.509 ± 0.070	(0.91 ± 0.25)	(0.62 ± 0.13)	(0.118 ± 0.004)
Tetracosanoic Acid (C24:0) (Lignoceric Acid)	(0.334 ± 0.074)	(0.369 ± 0.060)	(0.308 ± 0.059)	(0.096 ± 0.022)
(Z)-15-Tetracosenoic Acid (C24:1)	7.80 ± 0.6			0.084 ± 0.003
() Indicative values. Certified values in teal				

Vegetable oils

NIST-3278	Edible oils - Tocopherols		5 amps.	
	This Standard Reference Material® (SRM®) is intended primarily for use in validating analytical methods for the determination of tocopherols in edible oils and similar matrices. This SRM can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-3278 consists of five ampoules of oil each containing approximately 1 mL of material under argon.			
	Certified mass fraction values for tocopherols in NIST-3278			
	alpha-Tocopherol	290.1 ± 6.5 µg/g	gamma-Tocopherol	111.5 ± 5.8 µg/g
	beta-Tocopherol	11.38 ± 0.52 µg/g	delta-Tocopherol	28.8 ± 1.8 µg/g

Fruit and vegetables

Code	Product	Unit
BCR-383	Haricots verts (beans) - Major nutrients Certified values N (Kjeldahl)..... 1.1 g/100 g Ca 2.9 g/100 g Dietary fibre (AOAC 1985/1988) 11.9 g/100 g K..... 7.8 g/100 g Ash at 550°C 2.4 g/100 g Na 0.08 g/100 g Indicative values for glucose, fructose, sucrose, starch and sugars, dietary fibre (Englyst)	100 g
BCR-431	Brussels sprout - Vitamins Certified values Vitamin C (total ascorbate) 4830 mg/kg Niacin 43 mg/kg	20 g
BCR-485	Mixed vegetables - Vitamins Certified values B1 (thiamin).....3.07 mg/kg trans-a-Carotene.....10.5 mg/kg total-b-Carotene.....25.6 mg/kg B6 (total pyridoxine).....4.8 mg/kg trans-b-Carotene.....23.7 mg/kg Lutein.....12.5 mg/kg Folate (total).....3.15 mg/kg total-a-Carotene.....9.8 mg/kg Lutein+Zeaxanthin.....22.3 mg/kg	25 g
BCR-679	White cabbage - Trace elements Certified values Cd 1.66 mg/kg Hg.....6.3 µg/kg Sr 11.8 mg/kg Cu 2.89 mg/kg Mo14.8 mg/kg Tl..... 3.0 µg/kg Fe..... 55.0 mg/kg Ni27.0 mg/kg Zn..... 79.7 mg/kg Mn..... 13.3 mg/kg Sb20.6 µg/kg	15 g
ERM-BC514	Haricots beans - Dietary fibre (-20) Certified using five different methods of dietary fibre analysis Certified values AOAC 1990 25.6 g/100 g AOAC 1992 MES-TRIS 25.9 g/100 g Englyst (GC) 19.8 g/100 g Englyst (colorimetry) 20.1 g/100 g Uppsala 23.7 g/100 g	25 g
ERM-BC515	Carrot - Dietary fibre (-20) Certified using five different methods of dietary fibre analysis Certified values AOAC 1990 31.1 g/100 g AOAC 1992 MES-TRIS 29.5 g/100 Englyst (GC) 27.1 g/100 g Englyst (colorimetry) 25.2 g/100 g Uppsala 29.8 g/100 g	25 g
ERM-BC516	Apple - Dietary fibre (-20) Certified using five different methods of dietary fibre analysis	25 g

Fruit and vegetables

	Certified values AOAC 1..... 16.46 g/100 g AOAC 1992 MES-TRIS 14.9 g/100 g Englyst (GC) 13.7 g/100 g Englyst (colorimetry)13.4 g/100 g Uppsala 16.2 g/100g																						
ERM-BC517	Full fat soya - Dietary fibre (-20) 25 g Certified using five different methods of dietary fibre analysis Certified values AOAC 1990 12.6 g/100 g AOAC 1992 MES-TRIS 12.4 g/100 g Englyst (GC) 11.9 g/100 g Englyst (colorimetry) 12.3 g/100 g Uppsala 12.8 g/100 g																						
NIST-2385	Slurried spinach - Elements, carotenoids 4x70 g Certified values Ca624 ± 40 mg/kg Mg368 ± 30 mg/kg Zn.....8.37 ± 0.37 mg/kg Fe.....17.1 ±1.9 mg/kg Mn3.81 ±0.10 mg/kg K3650 ± 250 mg/kg P327.7 ± 6.6 mg/kg Total Lutein (incl. esters)32.9 ± 6.5 mg/kg Total beta-Carotene.....19.2 ± 2.9 mg/kg Indicative values for proximates, energy content, elements, vitamins and trans-beta-carotene.																						
NIST-3250	Serenoa repens (Fruit) - Phytosterols and fatty acids Each This Standard Reference Material (SRM) is intended primarily for use in validating analytical methods for the determination of phytosterols and fatty acids in the fruit of <i>Serenoa repens</i> (saw palmetto) and similar matrices. A unit of NIST-3250 consists of five packets, each containing approximately 6 g of ground saw palmetto fruit. Certified concentration values for selected phytosterols in NIST-3250 <table> <tr> <th>Phytosterols</th><th>Mass Fraction (mg/g, dry-mass basis)</th></tr> <tr> <td>Campesterol.....</td><td>0.1175 ± 0.0025</td></tr> <tr> <td>β-Sitosterol.....</td><td>0.454 ± 0.018</td></tr> <tr> <td>Stigmasterol.....</td><td>0.0477 ± 0.0020</td></tr> </table> Certified concentration values for selected fatty acids (as triglycerides) in NIST-3250 <table> <tr> <th>Fatty acids</th><th>Mass Fraction (%, dry-mass basis)</th></tr> <tr> <td>Octanoic acid (C8:0) (Caprylic acid).....</td><td>0.1072 ± 0.0027</td></tr> <tr> <td>Decanoic acid (C10:0) (Capric acid).....</td><td>0.1175 ± 0.0055</td></tr> <tr> <td>Dodecanoic acid (C12:0) (Lauric acid).....</td><td>2.962 ± 0.062</td></tr> <tr> <td>Tetradecanoic acid (C14:0) (Myristic acid).....</td><td>1.103 ± 0.065</td></tr> <tr> <td>Hexadecanoic acid (C16:0) (Palmitic acid).....</td><td>0.869 ± 0.027</td></tr> <tr> <td>(Z)-9-Hexadecenoic acid (C16:1 n-7) (Palmitoleic acid).....</td><td>0.0158 ± 0.0010</td></tr> </table>	Phytosterols	Mass Fraction (mg/g, dry-mass basis)	Campesterol.....	0.1175 ± 0.0025	β-Sitosterol.....	0.454 ± 0.018	Stigmasterol.....	0.0477 ± 0.0020	Fatty acids	Mass Fraction (%, dry-mass basis)	Octanoic acid (C8:0) (Caprylic acid).....	0.1072 ± 0.0027	Decanoic acid (C10:0) (Capric acid).....	0.1175 ± 0.0055	Dodecanoic acid (C12:0) (Lauric acid).....	2.962 ± 0.062	Tetradecanoic acid (C14:0) (Myristic acid).....	1.103 ± 0.065	Hexadecanoic acid (C16:0) (Palmitic acid).....	0.869 ± 0.027	(Z)-9-Hexadecenoic acid (C16:1 n-7) (Palmitoleic acid).....	0.0158 ± 0.0010
Phytosterols	Mass Fraction (mg/g, dry-mass basis)																						
Campesterol.....	0.1175 ± 0.0025																						
β-Sitosterol.....	0.454 ± 0.018																						
Stigmasterol.....	0.0477 ± 0.0020																						
Fatty acids	Mass Fraction (%, dry-mass basis)																						
Octanoic acid (C8:0) (Caprylic acid).....	0.1072 ± 0.0027																						
Decanoic acid (C10:0) (Capric acid).....	0.1175 ± 0.0055																						
Dodecanoic acid (C12:0) (Lauric acid).....	2.962 ± 0.062																						
Tetradecanoic acid (C14:0) (Myristic acid).....	1.103 ± 0.065																						
Hexadecanoic acid (C16:0) (Palmitic acid).....	0.869 ± 0.027																						
(Z)-9-Hexadecenoic acid (C16:1 n-7) (Palmitoleic acid).....	0.0158 ± 0.0010																						

	Octadecanoic acid (C18:0) (Stearic acid).....	0.1791 ± 0.0054
	(Z)-9-Octadecenoic acid (C18:1 n-9) (Oleic acid).....	3.24 ± 0.15
	(Z)-11-Octadecenoic acid (C18:1 n-7) (Vaccenic acid).....	0.0547 ± 0.0030
	(Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6) (Linoleic acid).....	0.824 ± 0.055
	(Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3) (Linolenic acid).....	0.194 ± 0.025
	Eicosanoic acid (C20:0) (Arachidic acid).....	0.0097 ± 0.0002
	Docosanoic acid (C22:0) (Behenic acid).....	0.0066 ± 0.0002
	Tetracosanoic acid (C24:0) (Lignoceric acid).....	0.0107 ± 0.0003
	Reference concentration values for selected fatty acids (as triglycerides) and for free fatty acids	
NIST-3251	Serenoa repens extract - Phytosterols, fatty acids, β-carotene, and gamma-tocopherol This Standard Reference Material (SRM) is intended primarily for use in validating analytical methods for the determination of phytosterols, fatty acids, β-carotene, and γ-tocopherol in extracts of Serenoa repens (saw palmetto) and similar matrices. This SRM can also be used for quality assurance when assigning values to in- house control materials. A unit of NIST-3251 consists of five ampoules, each containing approximately 1 mL of saw palmetto extract. Certified concentration values for selected phytosterols in NIST-3251	5x1 mL
	Phytosterols	Mass Fraction (mg/g)
	Campesterol.....	0.533 ± 0.031
	β-Sitosterol	1.666 ± 0.064
	Stigmasterol.....	0.247 ± 0.040
	Certified concentration values for selected fatty acids (as triglycerides) in NIST-3251	
	Fatty acids	Mass Fraction (%)
	Octanoic acid (C8:0) (Caprylic acid).....	2.677 ± 0.032
	Decanoic acid (C10:0) (Capric acid).....	2.690 ± 0.055
	Dodecanoic acid (C12:0) (Lauric acid).....	26.51 ± 0.66
	Tridecanoic acid (C13:0)	0.069 ± 0.002
	Tetradecanoic acid (C14:0) (Myristicacid).....	10.68 ± 0.16
	Pentadecanoic acid (C15:0)	0.0518 ± 0.0018
	Hexadecanoic acid (C16:0) (Palmitic acid).....	8.55 ± 0.20
	Heptadecanoic acid (C17:0).....	0.0640 ± 0.0024
	Octadecanoic acid (C18:0) (Stearic acid).....	1.757 ± 0.021
	(Z)-9-Octadecenoic acid (C18:1 n-9) (Oleic acid)..	34.73 ± 0.43
	(Z)-11-Octadecenoic acid (C18:1 n-7) (Vaccenic acid).....	0.834 ± 0.020
	(Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6) (Linoleic acid).....	6.018 ± 0.093
	(Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3) (Linolenic acid).....	1.248 ± 0.027

Fruit and vegetables

	Eicosanoic acid (C20:0) (Arachidic acid)..... 0.0936 ± 0.0033 (Z)-11-Eicosenoic acid (C20:1 n-9) (Gondoic acid)..... 0.1939 ± 0.0031 Docosanoic acid (C22:0) (Behenic acid)..... 0.0646 ± 0.0016 Tetracosanoic acid (C24:0)..... 0.0929 ± 0.0028 Certified concentration values for total β-carotene and γ-tocopherol in NIST-3251 Mass Fraction (μg/g) Total β-carotene..... 46.8 ± 4.6 γ-Tocopherol..... 280 ± 13 Reference concentration value for cycloartenol, selected fatty acids (as triglycerides), selected free fatty acids, for β-carotene isomers and δ-tocopherol, brassicasterol and lupeol										
NIST-3254	Green tea (<i>Camellia sinensis</i>) leaves - Catechins and xanthines 5x3 g This Standard Reference Material (SRM[®]) is intended primarily for use in validating analytical methods for the determination of catechins and xanthines in the leaves of <i>Camellia sinensis</i> (green tea) and similar matrices. NIST-3254 can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-3254 consists of five packets, each containing approximately 3 g of leaf powder. Certified Mass Fraction Values for Selected Catechins and Xanthines in NIST-3254 Mass Fraction (mg/g, dry-mass basis) <table> <tr> <td>(-)-Epicatechin9.0 ± 1.6</td><td>(-)-Gallocatechin gallate.....0.99 ± 0.21</td></tr> <tr> <td>(-)-Epicatechin gallate.....12.7 ± 1.2</td><td>Caffeine.....23.5 ± 1.8</td></tr> <tr> <td>(-)-Epigallocatechin.....25.2 ± 4.5</td><td>Theobromine.....0.463 ± 0.052</td></tr> <tr> <td>(-)-Epigallocatechin gallate52.0 ± 2.2</td><td></td></tr> </table> Indicative values for (+)-Catechin, (-)-Gallocatechin, Gallic acid and L-Theanine	(-)-Epicatechin9.0 ± 1.6	(-)-Gallocatechin gallate.....0.99 ± 0.21	(-)-Epicatechin gallate.....12.7 ± 1.2	Caffeine.....23.5 ± 1.8	(-)-Epigallocatechin.....25.2 ± 4.5	Theobromine.....0.463 ± 0.052	(-)-Epigallocatechin gallate52.0 ± 2.2			
(-)-Epicatechin9.0 ± 1.6	(-)-Gallocatechin gallate.....0.99 ± 0.21										
(-)-Epicatechin gallate.....12.7 ± 1.2	Caffeine.....23.5 ± 1.8										
(-)-Epigallocatechin.....25.2 ± 4.5	Theobromine.....0.463 ± 0.052										
(-)-Epigallocatechin gallate52.0 ± 2.2											
NIST-3255	Green tea (<i>Camellia sinensis</i>) extract - Catechins and xanthines 5x1 g This Standard Reference Material (SRM[®]) is intended primarily for use in validating analytical methods for the determination of catechins and xanthines in extracts of <i>Camellia sinensis</i> (green tea) and similar matrices. NIST- 3255 can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST- 3255 consists of five packets, each containing approximately 1 g of extract. Certified Mass Fraction Values for Selected Catechins and Xanthines in NIST-3255 Mass Fraction mg/g, dry-mass basis) <table> <tr> <td>(+)-Catechin.....9.17 ± 0.93</td><td>(-)-Gallocatechin22.0 ± 1.7</td></tr> <tr> <td>(-)-Epicatechin47.3 ± 6.7</td><td>(-)-Gallocatechin gallate.....39.0 ± 2.0</td></tr> <tr> <td>(-)-Epicatechin gallate.....100.3 ± 7.8</td><td>Caffeine.....36.9 ± 2.7</td></tr> <tr> <td>(-)-Epigallocatechin.....81.8 ± 6.5</td><td>Theobromine.....0.867 ± 0.076</td></tr> <tr> <td>(-)-Epigallocatechin gallate422.0 ± 19.0</td><td></td></tr> </table> Indicative values for (-)-Epigallocatechin methylgallate, Gallic acid, L-Theanine and Theophylline.	(+)-Catechin.....9.17 ± 0.93	(-)-Gallocatechin22.0 ± 1.7	(-)-Epicatechin47.3 ± 6.7	(-)-Gallocatechin gallate.....39.0 ± 2.0	(-)-Epicatechin gallate.....100.3 ± 7.8	Caffeine.....36.9 ± 2.7	(-)-Epigallocatechin.....81.8 ± 6.5	Theobromine.....0.867 ± 0.076	(-)-Epigallocatechin gallate422.0 ± 19.0	
(+)-Catechin.....9.17 ± 0.93	(-)-Gallocatechin22.0 ± 1.7										
(-)-Epicatechin47.3 ± 6.7	(-)-Gallocatechin gallate.....39.0 ± 2.0										
(-)-Epicatechin gallate.....100.3 ± 7.8	Caffeine.....36.9 ± 2.7										
(-)-Epigallocatechin.....81.8 ± 6.5	Theobromine.....0.867 ± 0.076										
(-)-Epigallocatechin gallate422.0 ± 19.0											
NIST-3256	Green tea-containing solid oral dosage form - Catechins, xanthines and toxic elements 5 x 2.5 g										

Fruit and vegetables

	This Standard Reference Material (SRM[®]) is intended primarily for use in validating analytical methods for the determination of catechins, xanthines, and toxic elements in solid oral dosage forms containing green tea and in similar matrices. NIST-3256 can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-3256 consists of five packets, each containing approximately 2.5 g of powdered material. Certified Mass Fraction Values for Selected Catechins, Gallic Acid, and Xanthines in NIST-3256 Mass Fraction (mg/g, dry-mass basis) <table><tr><td>(+)-Catechin.....</td><td>2.63 ± 0.18</td><td>(-)-Gallocatechin</td><td>7.55 ± 0.28</td></tr><tr><td>(-)-Epicatechin</td><td>12.0 ± 2.6</td><td>Gallic acid</td><td>13.10 ± 0.49</td></tr><tr><td>(-)-Epicatechin gallate.....</td><td>17.1 ± 2.6</td><td>Caffeine.....</td><td>70.0 ± 2.6</td></tr><tr><td>(-)-Epigallocatechin.....</td><td>30.7 ± 5.7</td><td>Theobromine.....</td><td>1.04 ± 0.15</td></tr><tr><td>(-)-Epigallocatechin gallate ...</td><td>71.1 ± 6.6</td><td></td><td></td></tr></table> Certified Mass Fraction Values for Toxic Elements in NIST-3256 Mass Fraction (mg/kg, dry-mass basis) <table><tr><td>Arsenic (As)</td><td>0.269 ± 0.019</td><td>Lead (Pb)</td><td>0.316 ± 0.030</td></tr><tr><td>Cadmium (Cd)</td><td>0.025 ± 0.002</td><td>Mercury (Hg)</td><td>0.014 ± 0.002</td></tr></table> Indicative values for (-)-Gallocatechin gallate, L-Theanine and Theophylline.		(+)-Catechin.....	2.63 ± 0.18	(-)-Gallocatechin	7.55 ± 0.28	(-)-Epicatechin	12.0 ± 2.6	Gallic acid	13.10 ± 0.49	(-)-Epicatechin gallate.....	17.1 ± 2.6	Caffeine.....	70.0 ± 2.6	(-)-Epigallocatechin.....	30.7 ± 5.7	Theobromine.....	1.04 ± 0.15	(-)-Epigallocatechin gallate ...	71.1 ± 6.6			Arsenic (As)	0.269 ± 0.019	Lead (Pb)	0.316 ± 0.030	Cadmium (Cd)	0.025 ± 0.002	Mercury (Hg)	0.014 ± 0.002
(+)-Catechin.....	2.63 ± 0.18	(-)-Gallocatechin	7.55 ± 0.28																											
(-)-Epicatechin	12.0 ± 2.6	Gallic acid	13.10 ± 0.49																											
(-)-Epicatechin gallate.....	17.1 ± 2.6	Caffeine.....	70.0 ± 2.6																											
(-)-Epigallocatechin.....	30.7 ± 5.7	Theobromine.....	1.04 ± 0.15																											
(-)-Epigallocatechin gallate ...	71.1 ± 6.6																													
Arsenic (As)	0.269 ± 0.019	Lead (Pb)	0.316 ± 0.030																											
Cadmium (Cd)	0.025 ± 0.002	Mercury (Hg)	0.014 ± 0.002																											
NIST-3258	Bitter Orange (Fruit) - Alkaloids 5 x 5 g This Standard Reference Material (SRM[®]) is intended primarily for use in validating analytical methods for the determination of alkaloids in bitter orange-containing solid oral dosage forms and similar matrices. This SRM can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-3258 consists of five packets, each containing approximately 5 g of ground fruit. Certified Concentration Values for Selected Alkaloids Mass Fraction (mg/g, dry-basis) <table><tr><td>Synephrine.....</td><td>9.10 ± 0.15</td><td>Total Citrus Alkaloids</td><td>9.41 ± 0.17</td></tr><tr><td>N-Methyltyramine</td><td>0.178 ± 0.012</td><td></td><td></td></tr></table> Indicative values for Octopamine		Synephrine.....	9.10 ± 0.15	Total Citrus Alkaloids	9.41 ± 0.17	N-Methyltyramine	0.178 ± 0.012																						
Synephrine.....	9.10 ± 0.15	Total Citrus Alkaloids	9.41 ± 0.17																											
N-Methyltyramine	0.178 ± 0.012																													
NIST-3281	Cranberry (Fruit) - Organic acids 5 x 6 g A unit of NIST-3281 consists of five packets, each containing approximately 6 g of freeze-dried, powdered fruit. Certified values (dry-mass basis) <table><tr><td>Citric acid</td><td>79.2 ± 6.4 mg/g</td><td>Quinic acid</td><td>47.8 ± 6.8 mg/g</td></tr><tr><td>Malic acid.....</td><td>40.6 ± 2.3 mg/g</td><td>Shikimic acid.....</td><td>2.09 ± 0.72 mg/g</td></tr></table>		Citric acid	79.2 ± 6.4 mg/g	Quinic acid	47.8 ± 6.8 mg/g	Malic acid.....	40.6 ± 2.3 mg/g	Shikimic acid.....	2.09 ± 0.72 mg/g																				
Citric acid	79.2 ± 6.4 mg/g	Quinic acid	47.8 ± 6.8 mg/g																											
Malic acid.....	40.6 ± 2.3 mg/g	Shikimic acid.....	2.09 ± 0.72 mg/g																											
NIST-3284	Cranberry-containing solid oral dosage form - Organic acids 5 x 2.5 g A unit of NIST-3284 consists of five packets, each containing approximately 2.5 g of powdered material. Certified mass fraction values for organic acids (dry-mass basis) <table><tr><td>Citric acid</td><td>34.7 ± 4.8 mg/g</td><td>Quinic acid</td><td>25.9 ± 3.5 mg/g</td></tr><tr><td>Malic acid.....</td><td>19.9 ± 1.9 mg/g</td><td></td><td></td></tr></table> Indicative values for organic acids and anions		Citric acid	34.7 ± 4.8 mg/g	Quinic acid	25.9 ± 3.5 mg/g	Malic acid.....	19.9 ± 1.9 mg/g																						
Citric acid	34.7 ± 4.8 mg/g	Quinic acid	25.9 ± 3.5 mg/g																											
Malic acid.....	19.9 ± 1.9 mg/g																													

Fruit and vegetables

NIST-3285	Mixed Berry-containing solid oral dosage form - Organic acids 5 x 2.5 g
	This Standard Reference Material (SRM) is intended primarily for use in validating analytical methods for the determination of organic acids in solid oral dosage forms containing bilberries, blueberries, and cranberries and in similar matrices. This SRM can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-3285 consists of five packets, each containing approximately 2.5 g of powdered material. Certified values (dry-mass basis) Malic acid..... 22.83 ± 0.53 mg/g Quinic acid ... 24.87 ± 0.42 mg/g Reference values for organic acids and anions
NIST-3287	Blueberry (Fruit) - Organic acids 5 x 5 g
	A unit of NIST-3287 consists of five packets, each containing approximately 5 g of freeze-dried, powdered fruit. Certified values mass fraction values for organic acids (dry-mass basis) Citric acid 24.33 ± 0.63 mg/g Quinic acid 25.53 ± 0.73 mg/g Malic acid..... 1.711 ± 0.060 mg/g Certified mass fraction values for elements (dry-mass basis) Calcium (Ca)..... 323 ± 16 mg/kg Manganese (Mn)..... 8.47 ± 0.59 mg/kg Copper (Cu)..... 2.22 ± 0.16 mg/kg Phosphorus (P)..... 671 ± 21 mg/kg Iron (Fe) 12.20 ± 0.74 mg/kg Potassium (K) 4490 ± 220 mg/kg Magnesium (Mg)..... 313.7 ± 7.2 mg/kg Zinc (Zn)..... 6.49 ± 0.61 mg/kg Indicative values for organic acids, anions, proximates, sugars, total dietary fiber, sodium, calories, vitamins and amino acids

Code	Product	Unit
ERM-BF410GK	Soya seed powder - GTS 40-3-2 Soya (10 %)	1 g
	Certified value g/kg 100	
	Uncertainty g/kg 7	
NIST-3234	Soy Flour	50 g
	NIST-3234 is intended primarily for validation of methods for determining proximates, vitamins, elements, and amino acids in soy flour and similar materials. This SRM can also be used for quality assurance when assigning values to in-house reference materials. The SRM is a defatted soy flour prepared by a commercial manufacturer. A unit of SRM 3234 consists of one bottle that contains approximately 50 g of material and is sealed inside an aluminized pouch.	
	Certified mass fraction values for selected elements	
	Ca 3191 ± 56 mg/kg	Mn 36.78 ± 0.88 mg/kg
	Cu 15.34 ± 0.26 mg/kg	P..... 8080 ± 210 mg/kg
	Fe..... 80.3 ± 2.7 mg/kg	K..... 25010 ± 560 mg/kg
	Mg 3487 ± 60 mg/kg	Zn 48.9 ± 1.1 mg/kg
	Certified concentrations for selected vitamins	
	Thiamine (Vitamin B1)..... 8.60 ± 0.20 mg/kg	
	Riboflavin (Vitamin B2)..... 3.363 ± 0.041 mg/kg	
	Niacin 4.59 ± 0.17 mg/kg	
	Niacinamide 11.49 ± 0.13 mg/kg	
	Total Vitamin B3 as Niacinamide 16.04 ± 0.24 mg/kg	
	Pantothenic Acid..... 11.45 ± 0.12 mg/kg	
	Choline..... 2799 ± 18 mg/kg	
	Reference values for Mass Fraction Values (Dry-Mass Basis) for Sodium and Carnitine, Proximates, Fatty Acids, Total Dietary Fibre, Calories and Amino Acids.	
ERM-BC517	Full fat soya - Dietary fibre (-20)	25 g
	Certified using five different methods of dietary fibre analysis Certified values	
	AOAC 1990..... 12.6 g/100 g	AOAC 1992 MES-TRIS 12.4 g/100 g
	Englyst (GC) 11.9 g/100 g	Englyst (colorimetry) 12.3 g/100 g
	Uppsala..... 12.8 g/100 g	

Rapeseed, Rice

Rapeseed

Code	Product	Unit
ERM-BC190	Rapeseed (colza) - Total glucosinolate and sulfur Certified values Total glucosinolate.....23 mmol/kg S..... 4.72 g/kg	20 g
ERM-BC366	Rapeseed (colza) - Total glucosinolate and sulfur (+4) Certified values Total glucosinolate.....11.9 mmol/kg S..... 3.31 g/kg	20 g
ERM-BC367	Rapeseed (colza) - Total glucosinolate and sulfur Certified values Total glucosinolate.....99 mmol/kg S..... 10.3 g/kg	20 g

Rice

Code	Product	Unit
BCR-465	Rice flour - Amylose (low level) Certified value Amylose 15.4 g/100 g	10 g
BCR-466	Rice flour - Amylose (medium level) Certified value Amylose 23.1 g/100 g	10 g
BCR-467	Rice flour - Amylose (high level) Certified value Amylose 27.7 g/100 g	10 g
ERM-BC211	Rice - As species (-20) Certified values Total arsenic 260 µg/kg The sum of arsenite and arsenate 124 µg/kg Dimethylarsinic acid 119 µg/kg	10 g
IRMM-804	Rice flour - Trace elements Compound Certified value Uncertainty (mg/kg) (mg/kg) As..... 0.049.....0.004 Cd 1.61.....0.07 Cu 2.74.....0.24 Mn..... 34.22.3 Pb 0.42.....0.07 Zn..... 23.1.....1.9	15 g

Rapeseed, Rice

NIST-1568B	Rice flour - Trace elements	50 g
	Produced from 100% long grain rice from Arkansas.	
	Certified values	
	Al.....4.21 mg/g	Fe.....7.42 mg/g
	As.....0.285 mg/g	Hg.....0.00591 mg/g
	Br8.31 mg/g	K1282 mg/g
	Ca118.4 mg/g	Mg559 mg/g
	Cd0.0224 mg/g	Mn19.2 mg/g
	Cl301.1 mg/g	Mo1.451 mg/g
	Cu2.35 mg/g	Na.....6.74 mg/g
	Indicative values for Co, I, Pb, Sb, Sn, U, V, W	P.....1530 mg/g
		Rb6.198 mg/g
		S1200 mg/g
		Se0.365 mg/g
		Zn.....19.42 mg/g

Fish and shellfish products

Code	Product	Unit
BCR-349	Cod liver oil - PCBs	2 g
	Compound	Certified value µg/kg Uncertainty µg/kg
	PCB 28	68.....8
	PCB 52	149.....21
	PCB 101	372.....18
	PCB 118	460.....40
	PCB 153	940.....40
	PCB 180	282.....23
BCR-543	Mussel - dc-Saxitoxin	15 g
	Mussel material BCR-543 is intended to serve as an analytical blank or as a material enriched with the saxitoxin enrichment solution (BCR-663).	
	As an analytical blank it may serve to establish recovery values for a method of analysis at various levels of contamination to check the specific background level of the laboratories methods. BCR-543 enriched with saxitoxin enrichment solution (BCR-663) may be used to validate the laboratory's own methods.	
	Compound	Certified value (mg/kg) Uncertainty (mg/kg)
	Saxitoxin·2HCl.....	<0.07
	Saxitoxin·2HCl.....	0.48..... 0.06
	DC-Saxitoxin·2HCl.....	<0.04
	This reference material is a "dual usage" material and requires special export/ import documents under the authority of IRMM.	
BCR-598	Cod liver oil - Organochlorine pesticides	5 g
	Compound	Certified value µg/kg Uncertainty µg/kg
	Hexachlorobenzene.....	55.7 2
	alpha-HCH.....	42..... 3
	beta-HCH.....	16..... 3
	gamma-HCH.....	23..... 4
	gamma-Chlordane.....	6.9..... 1.6
	alpha-Chlordane	24.4..... 1.8
	Oxychlordane	11..... 1.8
	trans-Nonachlor	39..... 4
	Dieldrin.....	59..... 4
	4,4'-DDE	0.61 x 10 ³ 0.04 x 10 ³
	2,4'-DDD.....	30..... 4
	4,4'-DDD	0.40 x 10 ³ 0.03 x 10 ³
	4,4'-DDT	0.179 x 10 ³ 0.018 x 10 ³

Fish and shellfish products

BCR-627	Tuna fish tissue - Arsenic species	10 g
	Certified values	
	Arsenobetaine52 mmol/kg total As4.8 mg/kg	
	Dimethylarsinic acid.....2 mmol/kg	
BCR-668	Mussel tissue - Trace elements	10 g
	Certified values	
	Ce 89 µg/kg La80 µg/kg Tb..... 1.62 µg/kg	
	Dy..... 8.9 µg/kg Lu0.389 µg/kg Th..... 10.7 µg/kg	
	Er 4.5 µg/kg Nd.....54 µg/kg Tm..... 0.480 µg/kg	
	Eu..... 2.79 µg/kg Pr.....12.3 µg/kg U 56 µg/kg	
	Gd 13.0 µg/kg Sm.....11.2 µg/kg Y..... 59 µg/kg	
	Indicative values for As, Cd, Co, Cr, Cr, Cs, Ho, Fe, Mo, Sc, Yb and Zn	
BCR-682	Mussel tissue - PCBs	70 g
	Certified values	
	PCB 28 0.30 µg/kg PCB 1384.6 µg/kg PCB 170 0.17 µg/kg	
	PCB 52 0.78 µg/kg PCB 1495.7 µg/kg PCB 180 0.77 µg/kg	
	PCB 118 2.6 µg/kg PCB 1539.2 µg/kg	
BCR-718	Canned fresh herring - PCBs	70 g
	The material consists of approx. 70 g of minced sterilised muscle of herring to which butylhydroxy toluene (BHT) was added as an antioxidant.	
	Certified values	
	PCB 28 0.41 µg/kg PCB 118.....1.78 µg/kg PCB 153 4.62 µg/kg	
	PCB 52 1.00 µg/kg PCB 128.....0.62 µg/kg PCB 156 0.19 µg/kg	
	PCB 101 2.12 µg/kg PCB 138.....2.97 µg/kg PCB 170 0.35 µg/kg	
	PCB 105 0.63 µg/kg PCB 149.....2.58 µg/kg PCB 180 0.795 µg/kg	
BCR-725	Salmon tissue - Flumequine and oxolinic acid	vial
	Certified value µg/kg Uncertainty µg/kg	
	Flumequine.....1170.....210	
	Oxolinic acid600.....100	

Fish and shellfish products

CIF-MUSSEL-DSP-2	Mussel matrix with DSP toxins			4 g
	CIF-MUSSEL-DSP-2 is a homogenous mussel tissue with known concentrations of Okadaic acid, DTX-1 and DTX-3. This Quality Control material is suitable for a range of analytical DSP testing functions including ongoing method control, method development and instrument calibration.			
	Okadaic acid.....			361 µg/kg
	Dinophysistoxin-1 (DTX-1).....			206 µg/kg
	Dinophysistoxin-3 (DTX-3).....			283 µg/kg
ERM-BB350	Salmon oil - PCBs			2 g
	Compound	Certified value ng/kg	Uncertainty ng/kg	
	2,4,4'-Trichlorobiphenyl (PCB 28)	21.3.....	1.1	
	2,2',5,5'-Tetrachlorobiphenyl (PCB 52)	37.4.....	2.2	
	2,4,4',5-Tetrachlorobiphenyl (PCB 74)	23.....	1.9	
	2,2',4,4',5-Pentachlorobiphenyl (PCB 99)	62.....	6	
	2,2',4,5,5'-Pentachlorobiphenyl (PCB 101)	111.....	5	
	2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	25.8.....	2.1	
	2,3,3',4',6-Pentachlorobiphenyl (PCB 110)	54.1.....	2.8	
	2,3',4,4',5-Pentachlorobiphenyl (PCB 118)	84.....	4	
	2,2',3,4,4',5'-Hexachlorobiphenyl (PCB 138)	137.....	10	
	2,2',3,4',5',6-Hexachlorobiphenyl (PCB 149)	88.....	9	
	2,2',4,4',5,5'-Hexachlorobiphenyl (PCB 153)	220.....	11	
	2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	20.1.....	1.3	
	2,2',3,3',4,5',6'-Heptachlorobiphenyl (PCB 177)	25.8.....	2	
	2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180)	67.....	4	
	2,2',3,4,4',5',6-Heptachlorobiphenyl (PCB 183)	22.5.....	1.8	
	2,2',3,4',5,5',6-Heptachlorobiphenyl (PCB 187)	67.....	5	
	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (PCB 194)	23.4.....	1.5	
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (PCB 196)	41.....	7		
ERM-BB422	Fish muscle - Trace elements			10 g
	Certified values			
	As 12.7 mg/kg			
	Cd 0.0075 mg/kg			
	Cu 1.67 mg/kg			
	Fe 9.4 mg/kg			
	Hg 0.601 mg/kg			

Fish and shellfish products

ERM-CE278K	Mussel tissue - Trace elements	8 g
	Certified values	
	As 6.7 mg/kg	
	Cd 0.336 mg/kg	
	Cr 0.73 mg/kg	
	Cu 5.98 mg/kg	
	Fe 161 mg/kg	
	Hg 0.071 mg/kg	
	Mn 4.88 mg/kg	
ERM-CE464	Tuna fish - Total mercury and methyl mercury	15 g
	Certified values	
	Methylmercury 5.50 mg/kg	
	Total mercury 5.24 mg/kg	
ERM-CE477	Mussel tissue - Butyltin compounds	14 g
	Compound	Certified value mg/kg Uncertainty mg/kg
	Tributyltin (TBT).....	2.20.....0.19
	Dibutyltin (DBT)	1.540.12
	Monobutyltin (MBT)	1.50.....0.28
LGC7164	Crab paste - Proximates and Elements	140 g
	LGC Certified Reference Material LGC7164 is a brown crab meat paste. This material is sealed in cans in 140g portions.	
	Certified values	
	Moisture59.26 g/100 g	Lead 0.0697 mg/kg
	Nitrogen3.541 g/100 g	Magnesium 43.1 mg/100 g
	Total fat.....12.13 g/100 g	Manganese 3.28 mg/kg
	Ash.....2.855 g/100 g	Phosphorus..... 564 mg/100 g
	Chloride0.78 g/100 g	Potassium..... 564 mg/100 g
	Calcium.....348 mg/100 g	Sodium..... 463 mg/100 g
	Cadmium9.20 mg/kg	Zinc 56.8 mg/kg

Fish and shellfish products

	Copper20.1 mg/kg	
	Assessed values	
	Arsenic13.8 mg/kg	Iron..... 3.17 mg/kg
	Cobalt0.131 mg/kg	
	Indicative values	
	Aluminium1-4 mg/kg	Nickel 0.1-1.1 mg/kg
	Chromium0.1-1.0 mg/kg	Selenium 1.4-4.0 mg/kg
	Mercury.....0.08-0.11 mg/kg	Tin 0.01-0.15 mg/kg
NIST-1566b	Oyster Tissue - Trace elements and methyl mercury	25 g
	This Standard Reference Material [®] (SRM [®]) is intended primarily for use in evaluating analytical methods and instruments used for the determination of the concentrations of selected elements and proximates, selected fatty acids, total dietary fibre, as well as the calorific content in marine bivalve tissue, foods, or similar materials. A unit of NIST-1566b contains approximately 25 g of freeze-dried oyster tissue.	
	Certified values	
	Ca... 0.0838 ± 0.0020 %	Pb..... 0.308 ± 0.009 mg/kg
	Cl... 0.514 ± 0.010 %	Mn..... 18.5 ± 0.2 mg/kg
	Mg... 0.1085 ± 0.0023 %	Hg (total)..... 0.0371 ± 0.0013 mg/kg
	K... 0.652 ± 0.009 %	Methylmercury (as Hg) 0.0132 ± 0.0007 mg/kg
	Na... 0.3297 ± 0.0053 %	Ni..... 1.04 ± 0.09 mg/kg
	S... 0.6887 ± 0.0140 %	Rb..... 3.262 ± 0.145 mg/kg
	Al... 197.2 ± 6.0 mg/kg	Se..... 2.06 ± 0.15 mg/kg
	As... 7.65 ± 0.65 mg/kg	Ag..... 0.666 ± 0.009 mg/kg
	Cd... 2.48 ± 0.08 mg/kg	Th..... 0.0367 ± 0.0043 mg/kg
	Co... 0.371 ± 0.009 mg/kg	V..... 0.577 ± 0.023 mg/kg
	Cu... 71.6 ± 1.6 mg/kg	Zn..... 1 424 ± 46 mg/kg
	Fe... 205.8 ± 6.8 mg/kg	
	Indicative values for proximates, nitrogen, total dietary fiber, selected fatty acids (as triglycerides) and calories	
NIST-1947	Lake Michigan fish tissue - Organic contaminants	5 x 8 g
	This Standard Reference Material ^a (SRM ^a) 1947 is a frozen fish tissue homogenate, which was prepared from fish collected from Lake Michigan, and is intended primarily for use in evaluating analytical methods for the determination of selected trace elements, methylmercury, total mercury, polychlorinated biphenyl (PCB) congeners, chlorinated pesticides, and polybrominated diphenyl ether (PBDE) congeners, proximates, caloric content and fatty acids in fish tissue and similar matrices. All of the constituents for	

Fish and shellfish products

which certified, reference, and information values are provided are naturally present in the fish tissue homogenate. A unit of NIST-1947 consists of five bottles, each containing approximately 8 g (wet basis) of frozen tissue homogenate.

Certified concentrations for selected elements and methylmercury

Element Mass Fraction mg/kg (wet-mass basis)

As.....	0.732 ± 0.039	Rb.....	4.51 ± 0.09
Cu	0.411 ± 0.029	Se.....	0.475 ± 0.084
Fe.....	3.79 ± 0.42	Zn	2.66 ± 0.08
Hg	0.254 ± 0.005	Methylmercury	0.233 ± 0.010
Mn	0.076 ± 0.004		

Certified concentrations for selected PCB congeners

Mass fraction µg/kg (dry mass basis)

PCB 28	2,4,4'-Trichlorobiphenyl	14.1 ± 1.0
PCB 31	2,4',5-Trichlorobiphenyl	10.4 ± 1.4
PCB 44	2,2',3,5'-Tetrachlorobiphenyl	20.4 ± 1.7
PCB 49	2,2',4,5'-Tetrachlorobiphenyl	27.3 ± 3.8
PCB 52	2,2',5,5'-Tetrachlorobiphenyl	36.4 ± 4.3
PCB 63	2,3,4',5-Tetrachlorobiphenyl	4.75 ± 0.60
PCB 66	2,3',4,4'-Tetrachlorobiphenyl	69.4 ± 5.3
PCB 74	2,4,4',5-Tetrachlorobiphenyl	33.7 ± 3.1
PCB 87	2,2',3,4,5'-Pentachlorobiphenyl	27.9 ± 1.5
PCB 99	2,2',4,4',5-Pentachlorobiphenyl	78.0 ± 6.0
PCB 101	2,2',4,5,5'-Pentachlorobiphenyl	90.8 ± 0.3
PCB 105	2,3,3',4,4'-Pentachlorobiphenyl	50.3 ± 3.7
PCB 107	2,3,3',4',5-Pentachlorobiphenyl	17.1 ± 1.2
PCB 110	2,3,3',4',6-Pentachlorobiphenyl	94.6 ± 4.3
PCB 118	2,3',4,4',5-Pentachlorobiphenyl	112 ± 6
PCB 128	2,2',3,3',4,4'-Hexachlorobiphenyl	31.6 ± 2.1
PCB 132	2,2',3,3',4,6'-Hexachlorobiphenyl	20.8 ± 2.1
PCB 138	2,2',3,4,4',5'-Hexachlorobiphenyl	162.0 ± 6.9

Fish and shellfish products

PCB 146	2,2',3,4',5,5'-Hexachlorobiphenyl	40.5 ± 2.0
PCB 149	2,2',3,4',5',6-Hexachlorobiphenyl	67.1 ± 3.7
PCB 153	2,2',4,4',5,5'-Hexachlorobiphenyl	201 ± 3
PCB 156	2,3,3',4,4',5-Hexachlorobiphenyl	13.3 ± 0.9
PCB 158	2,3,3',4,4',6-Hexachlorobiphenyl	11.3 ± 0.9
PCB 170	2,2',3,3',4,4',5-Heptachlorobiphenyl	29.2 ± 2.4
PCB 174	2,2',3,3',4,5,6'-Heptachlorobiphenyl	18.6 ± 1.7
PCB 180	2,2',3,4,4',5,5'-Heptachlorobiphenyl	80.8 ± 5.0
PCB 183	2,2',3,4,4',5',6-Heptachlorobiphenyl	23.3 ± 1.9
PCB 187	2,2',3,4',5,5',6-Heptachlorobiphenyl	54.8 ± 2.6
PCB 193	2,3',3,4',5,5',6-Heptachlorobiphenyl	6.04 ± 0.23
PCB 194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	13.2 ± 0.9
PCB 195	2,2',3,3',4,4',5,6-Octachlorobiphenyl	4.95 ± 0.77
PCB 206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	6.24 ± 0.8

Certified concentrations for selected chlorinated pesticides

Mass fraction µg/kg (wet- mass basis)

Hexachlorobenzene	7.48 ± 0.66	Mirex.....	5.09 ± 0.73
α-HCH	1.06 ± 0.12	2,4'-DDE...	3.39 ± 0.28
Heptachlor epoxide	13.4 ± 0.8	4,4'-DDE...	720 ± 43
Oxychlordane.....	23.6 ± 1.5	2,4'-DDD...	3.31 ± 0.16
trans-Chlordane.....	12.8 ± 1.2	4,4'-DDD...	45.9 ± 3.6
cis-Nonachlor.....	54.1 ± 7.3	2,4'-DDT...	15.7 ± 0.89
trans-Nonachlor.....	127 ± 6	4,4'-DDT...	59.5 ± 6.7
Dieldrin.....	80.8 ± 3.8		

Certified concentrations for fat and selected polybrominated diphenyl ether (PBDE)

Mass fraction µg/kg (wet- mass basis)

BDE 47	2,2',4,4'-Tetrabromodiphenylether	73.3 ± 2.9
BDE 49	2,2',4,5'-Tetrabromodiphenylether	4.01 ± 0.10

Fish and shellfish products

BDE 66	2,3',4,4'-Tetrabromodiphenylether	1.85 ± 0.13
BDE 99	2,2',4,4',5-Pentabromodiphenylether	19.2 ± 0.8
BDE 100	2,2',4,4',6-Pentabromodiphenylether	17.1 ± 0.6
BDE 153	2,2',4,4',5,5'-Hexabromodiphenylether	3.83 ± 0.04
BDE 154	2,2',4,4',5,6'-Hexabromodiphenylether	6.88 ± 0.52
Reference concentrations for PCBs, pesticides, PBDE congeners, pesticides, proximates and caloric content, fat and fatty acids.		

NIST-1974C

Mussel tissue (frozen) - PAHs, PCBs, Chlorinated Pesticides, PBDEs 5 x 10 g

Standard Reference Material NIST-1974c is a frozen mussel tissue homogenate intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine bivalve mollusk tissue and similar matrices. All of the constituents for which certified and reference values are provided in NIST-1974c were naturally present in the tissue material before processing.

Certified concentrations for selected PAHs in NIST-1974c

Mass Fractions in µg/kg	Wet-Mass Basis	Dry-Mass Basis
Fluorene.....	2.31 ± 0.04.....	22.6 ± 0.4
Dibenzothiophene.....	1.53 ± 0.02.....	15.0 ± 0.2
Phenanthrene.....	19.6 ± 0.4.....	191 ± 4
Anthracene.....	1.17 ± 0.08.....	11.4 ± 0.8
1-Methylphenanthrene.....	3.07 ± 0.11.....	30.0 ± 1.1
2-Methylphenanthrene.....	4.56 ± 0.04.....	44.5 ± 0.5
3-Methylphenanthrene.....	4.09 ± 0.03.....	39.9 ± 0.4
9-Methylphenanthrene.....	2.46 ± 0.02.....	24.0 ± 0.3
2-Methylanthracene.....	0.951 ± 0.007.....	9.2 ± 0.1
Fluoranthene.....	45.3 ± 0.8.....	442 ± 9
Pyrene.....	23.9 ± 1.6.....	233 ± 15
Benzo[ghi]fluoranthene.....	3.03 ± 0.09.....	29.5 ± 0.9
Benzo[c]phenanthrene.....	1.99 ± 0.04.....	19.4 ± 0.4
Benz[a]anthracene.....	5.69 ± 0.11.....	55.5 ± 1.1
Benzo[k]fluoranthene	2.75 ± 0.02.....	26.8 ± 0.3

Benzo[a]fluoranthene.....	0.543 ± 0.006.....	5.30 ± 0.07
Benzo[e]pyrene.....	7.33 ± 0.05.....	71.6 ± 0.7
Benzo[a]pyrene.....	2.32 ± 0.03.....	22.6 ± 0.3
Perylene.....	0.560 ± 0.022.....	5.46 ± 0.22
Benzo[ghi]perylene.....	2.82 ± 0.05.....	27.6 ± 0.5
Benzo[b]chrysene.....	0.694 ± 0.013.....	6.77 ± 0.13
Picene.....	1.36 ± 1.6.....	13.2 ± 0.8

Certified concentrations for selected PCB congeners in NIST-1974c

Mass Fractions in µg/kg		Wet-Mass Basis	Dry-Mass Basis
PCB 8	2,4'- Dichlorobiphenyl.....	0.191 ± 0.003...	1.86 ± 0.03
PCB 18	2,2',5-Trichlorobiphenyl...	0.589 ± 0.007...	5.75 ± 0.08
PCB 28	2,4,4'-Trichlorobiphenyl...	1.47 ± 0.02.....	14.4 ± 0.2
PCB 31	2,4',5-Trichlorobiphenyl...	1.16 ± 0.06.....	11.3 ± 0.6
PCB 44	2,2'3,5'-Tetrachlorobiphenyl	1.54 ± 0.08.....	15.1 ± 0.8
PCB 45	2,2'3,6-Tetrachlorobiphenyl...	0.214 ± 0.019...	2.09 ± 0.18
PCB 49	2,2'4,5'-Tetrachlorobiphenyl	1.76 ± 0.02.....	17.1 ± 0.2
PCB 52	2,2',5,5'-Tetrachlorobiphenyl	2.49 ± 0.06.....	24.3 ± 0.6
PCB 56	2,3,3',4'-Tetrachlorobiphenyl	0.663 ± 0.008...	6.46 ± 0.09
PCB 63	2,3,4',5-Tetrachlorobiphenyl	0.137 ± 0.013...	1.34 ± 0.13
PCB 66	2,3',4,4'-Tetrachlorobiphenyl	1.65 ± 0.02.....	16.1 ± 0.2
PCB 70	2,3',4',5-Tetrachlorobiphenyl	1.57 ± 0.05.....	15.3 ± 0.5
PCB 74	2,4,4',5-Tetrachlorobiphenyl	0.850 ± 0.011...	8.29 ± 0.12
PCB 82	2,2',3,3',4-Pentachlorobiphenyl.....	0.507 ± 0.008...	4.95 ± 0.09
PCB 87	2,2',3,4,5'-Pentachlorobiphenyl.....	2.08 ± 0.02.....	20.3 ± 0.2
PCB 92	2,2',3,5,5'-Pentachlorobiphenyl.....	1.06 ± 0.02.....	10.4 ± 0.2
PCB 95	2,2',3,5',6-Pentachlorobiphenyl.....	1.82 ± 0.02.....	17.8 ± 0.2
PCB 99	2,2',4,4',5-Pentachlorobiphenyl.....	3.55 ± 0.05.....	34.7 ± 0.6

Fish and shellfish products

PCB 101	2,2',4,5,5'-Pentachlorobiphenyl.....	6.67 ± 0.05.....	65.1 ± 0.7
PCB 105	2,3,3',4,4'-Pentachlorobiphenyl.....	1.57 ± 0.03.....	15.3 ± 0.3
PCB 110	2,3,3',4',6-Pentachlorobiphenyl.....	5.47 ± 0.06.....	53.4 ± 0.7
PCB 118	2,3',4,4',5-Pentachlorobiphenyl.....	4.08 ± 0.09.....	39.8 ± 0.9
PCB 128	2,2',3,3',4,4'-Hexachlorobiphenyl.....	0.801 ± 0.011...	7.81 ± 0.11
PCB 138	2,2',3,4,4',5'-Hexachlorobiphenyl.....	4.39 ± 0.04.....	42.9 ± 0.5
PCB 146	2,2',3,4',5,5'-Hexachlorobiphenyl.....	0.904 ± 0.005...	8.82 ± 0.09
PCB 149	2,2',3,4',5',6-Hexachlorobiphenyl.....	3.97 ± 0.04.....	39.8 ± 0.5
PCB 151	2,2',3,5,5',6-Hexachlorobiphenyl.....	1.13 ± 0.03.....	11.0 ± 0.3
PCB 153	2,2',4,4',5,5'-Hexachlorobiphenyl.....	6.76 ± 0.12.....	66.0 ± 1.3
PCB 156	2,3,3',4,4',5-Hexachlorobiphenyl.....	0.253 ± 0.005...	2.47 ± 0.05
PCB 158	2,3,3',4,4',6-Hexachlorobiphenyl.....	0.443 ± 0.003...	4.33 ± 0.04
PCB 163	2,3,3',4',5,6-Hexachlorobiphenyl.....	1.10 ± 0.09.....	10.8 ± 0.9
PCB 170	2,2',3,3',4,4',5-Heptachlorobiphenyl.....	0.105 ± 0.009...	1.03 ± 0.09
PCB 177	2,2',3,3',4',5,6-Heptachlorobiphenyl.....	0.696 ± 0.011...	6.79 ± 0.12
PCB 178	2,2',3,3',5,5',6 – Heptachlorobiphenyl.....	0.350 ± 0.011...	3.42 ± 0.04
PCB 180	2,2',3,4,4',5,5'-Heptachlorobipheny.....	0.594 ± 0.008...	5.79 ± 0.09
PCB 183	2,2',3,4,4',5',6-Heptachlorobiphenyl.....	0.848 ± 0.006...	8.27 ± 0.09
PCB 187	2,2',3,4',5,5',6-Heptachlorobiphenyl.....	2.09 ± 0.05.....	20.4 ± 0.5
NIST-2974A	Mussel tissue - Organics	5 g	
This Standard Reference Material® (SRM®) is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, chlorinated pesticides, polybrominated diphenyl ether (PBDE) congeners, hexabromocyclododecane (HBCD) isomers, methylmercury, inorganic mercury, and total mercury in marine bivalve mollusk tissue and similar matrices. All of the constituents for which certified and reference values are provided are naturally present in the freeze-dried mussel tissue. A unit of NIST-2974A consists of one bottle containing approximately 5 g of freeze- dried mussel tissue.			
Certified Concentration Values for Selected PAHs in NIST-2974A			
Mass Fraction µg/kg (dry-mass basis)			
Phenanthrene	74.4 ±4.7	Benzo[c]phenanthrene	23.2 ± 1.9

Fish and shellfish products

1-Methylphenanthrene	17.6 ± 1.6	Benz[a]anthracene	31.1 ± 3.9
2-Methylphenanthrene	28.2 ± 2.6	Chrysene and Triphenylene	123.6 ± 2.9
3-Methylphenanthrene	24.1 ± 1.4	Benzo[b]fluoranthene	41.5 ± 2.6
9-Methylphenanthrene	15.9 ± 1.3	Benzo[j]fluoranthene	21.4 ± 1.1
4-H-Cyclopenta[def]phenanthrene	13.15 ± 0.71	Benzo[k]fluoranthene	18.95 ± 0.54
Fluoranthene	287 ± 34	Benzo[e]pyrene	58.9 ± 2.9
Pyrene	166 ± 21	Benzo[a]pyrene	9.73 ± 0.43
1-Methylpyrene	10.69 ± 0.83	Perylene	6.80 ± 0.34
4-Methylpyrene	19.77 ± 0.89	Benzo[ghi]perylene	23.7 ± 2.2

Benzo[ghi]fluoranthene 18.7 ± 1.7

Certified Concentration Values for Selected PCB Congeners in NIST-2974A

Mass Fraction µg/kg (dry-mass basis)

PCB 8.....	2.01 ± 0.08	PCB 118.....	42.9 ± 2.1
PCB 18.....	4.03 ± 0.22	PCB 128.....	8.24 ± 0.33
PCB 44.....	16.24 ± 0.71	PCB 138.....	61.5 ± 2.3
PCB 49.....	17.1 ± 1.2	PCB 146.....	8.07 ± 0.40
PCB 52.....	22.42 ± 0.92	PCB 149.....	31.77 ± 0.95
PCB 66.....	20.6 ± 1.1	PCB 151.....	5.99 ± 0.20
PCB 70.....	15.45 ± 0.64	PCB 153.....	78.8 ± 2.5
PCB 74.....	9.02 ± 0.37	PCB 156.....	5.80 ± 0.25
PCB 87.....	14.36 ± 0.56	PCB 170.....	2.04 ± 0.08
PCB 95.....	23.72 ± 0.49	PCB 177.....	5.48 ± 0.20
PCB 99.....	24.51 ± 0.54	PCB 180.....	5.31 ± 0.16
PCB 101.....	39.84 ± 0.96	PCB 183.....	7.06 ± 0.26
PCB 105.....	16.47 ± 0.43	PCB 187.....	15.52 ± 0.48
PCB 110.....	35.88 ± 0.87	PCB 194.....	0.485 ± 0.040

Certified Concentration Values for Selected Chlorinated Pesticides in NIST-2974A

Mass Fraction µg/kg (dry-mass basis)

Hexachlorobenzene	0.113 ± 0.007	cis-Chlordane.....	8.54 ± 0.17
4,4'-DDE.....	17.37 ± 0.82	trans-Chlordane...	7.12 ± 0.15

Fish and shellfish products

	4,4'-DDD.....	13.56 ± 0.58	cis-Nonachlor.....	1.91 ± 0.10
	4,4'-DDT.....	6.78 ± 0.32	trans-Nonachlor...	5.60 ± 0.39
	Certified Concentration Values for Selected PBDE Congeners in NIST-2974A			
	Mass Fraction µg/kg (dry-mass basis)			
	PBDE 28.....	0.905 ± 0.051	PBDE 153.....	0.201 ± 0.014
	PBDE 49.....	1.36 ± 0.06	PBDE 209.....	1.99 ± 0.11
	PBDE 99.....	4.78 ± 0.24		
	Certified Concentration Value of Methylmercury, Inorganic Mercury, and Total Mercury in NIST-2974A			
	Mass Fraction µg/kg (dry-mass basis)			
	Methylmercury.....	69.06 ± 0.81	Total Mercury.....	195 ± 3
	Inorganic Mercury...	122 ± 3		
	Reference values for selected PAHs, PCBs and PBDE Congeners.			
NIST-2976	Mussel tissue -Trace elements and methylmercury			25 g
	Certified values			
	As.....	13.3 mg/kg	Se.....	1.80 mg/kg
	Cd.....	0.82 mg/kg	Zn.....	137 mg/kg
	Cu.....	4.02 mg/kg	Methylmercury	27.8 mg/kg
	Fe.....	171 mg/kg	Total mercury....	61.0 mg/kg
	Pb.....	1.19 mg/kg		
	Indicative values for: Ag, Al, Br, Ca, Ce, Cl, Co, Cr, Cs, Eu, K, Mg, Mn, Na, Ni, P, Pb, Rb, S, Sc, Sn, Sr, Th, Tl			
NIST-3275	Fish oil - Omega-3 and omega-6 fatty acids			6 x 1.2 mL
	This Standard Reference Material (SRM [®]) is intended primarily for validation of methods for determining fatty acids in fish oils and similar materials. This SRM can also be used for quality assurance when assigning values to in-house reference materials. SRM 3275 consists of three individual oils: NIST-3275-1, a concentrate high in docosahexaenoic acid (DHA); NIST-3275-2, an anchovy oil high in DHA and eicosapentaenoic acid (EPA); and NIST-3275-3, a concentrate containing 60 % long-chain omega-3 fatty acids. A unit of NIST-3275 consists of two ampoules of each of the three oils, each ampoule containing approximately 1.2 mL of material.			
	Certified mass fraction values for fatty acids as fatty acid methyl esters (FAMES)			
	Mass fraction (mg/kg)	SRM 3275-1	SRM 3275-2	SRM 3275-3
	Dodecanoic acid (C12:0; Lauric acid)			0.95 ± 0.12
	Tetradecanoic acid (C14:0; Myristic acid)	1.094 ± 0.053	3.45 ± 0.40	67.9 ± 1.5
	Hexadecanoic acid (C16:0; Palmitic acid)	5.25 ± 0.35	8.01 ± 0.44	186.9 ± 9.4

Fish and shellfish products

	(Z)-9-Hexadecenoic acid (C16:1 n-7) (Palmitoleic acid)	7.43 ± 0.24	5.83 ± 0.45	85.7 ± 3.1
	Octadecanoic acid (C18:0; Stearic acid)	4.22 ± 0.13	12.94 ± 0.62	38.0 ± 5.7
	(Z)-9-Octadecenoic acid (C18:1 n-9) (Oleic acid)	11.25 ± 0.93	22.1 ± 1.6	112.3 ± 2.6
	(Z)-11-Octadecenoic acid (C18:1 n-7) (Vaccenic acid)	5.33 ± 0.35	9.24 ± 0.77	38.5 ± 2.2
	ω-6 (Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6) (Linoleic acid)	2.31 ± 0.19	3.00 ± 0.42	13.49 ± 0.45
	ω-3 (Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3) (α-Linolenic acid; ALA)		14.99 ± 0.37	9.08 ± 0.22
	Eicosanoic acid (C20:0; Arachidic acid)		0.357 ± 0.027	1.14 ± 0.26
	(Z)-11-Eicosenoic acid (C20:1 n-9) (Gondoic acid)		6.66 ± 0.69	2.92 ± 0.14
	ω-3 (Z,Z,Z,Z,Z)-5,8,11,14,17- Eicosapentaenoic acid (C20:5 n-3; EPA)	113 ± 12	460 ± 34	199.1 ± 7.8
	Docosanoic acid (C22:0; Behenic acid)	4.02 ± 0.24	1.396 ± 0.046	0.502 ± 0.047
	ω-3 (Z,Z,Z,Z,Z)-4,7,10,13,16,19- Docosahexaenoic acid (C22:6 n-3; DHA)	524 ± 42	267 ± 12	163.5 ± 7.2
	(Z)-13-Docosenoic acid (C22:1 n-9; Erucic acid)		3.43 ± 0.32	
	(Z,Z,Z,Z,Z)-7,10,13,16,19- Docosapentaenoic acid (C22:5; DPA)	87.2 ± 6.7	81.5 ± 4.4	37.9 ± 2.9
	Tetracosanoic acid (C24:0; Lignoceric acid)		1.41 ± 0.13	
	Indicative values for further fatty acids as fatty acid methyl esters.			
NRCCARP-2	Fish (common carp) - Dioxins, furans and PCBs 6 x 9 g			
	Prepared from common carp (<i>Cyprinus carpio</i>) collected near the warm water discharge of the Consumer's Power Plant in Saginaw Bay, Lake Huron, Canada			
	Certified values			
	PCB18 27.3 mg/kg			
	PCB28 34.0 mg/kg			
	PCB44 86.6 mg/kg			
	PCB52 138 mg/kg			
	Reference Values			
	2,3,7,8-TCDF.....18.2 ng/kg	1,2,3,6,7,8-HxCDD	5.8 ng/kg	
	1,2,3,7,8-PCDF.....5.6 ng/kg	1,2,3,7,8,9-HxCDD	0.78 ng/kg	
	2,3,7,8-TCDD7.4 ng/kg	1,2,3,4,6,7,8-HpCDD	6.4 ng/kg	
	1,2,3,7,8-PCDD5.3 ng/kg	OCDD	9.4 ng/kg	
	1,2,3,4,7,8-HxCDD1.6 ng/kg			
	Other reference concentrations for selected PCB congeners and pesticides are given in the certificate.			

Fish and shellfish products

NRCCRM-ASP-MUS-D	Mussel tissue - Domoic acid (amnesic toxin)8 g				
	A homogenised slurry of mussel tissue (<i>Mytilus edulis</i> L.).				
	Certified value				
	Domoic acid + C5'-Epidomoic acid 49 µg/g				
NRCCRM-AZA-MUS	Mussel tissue - Azaspiracids8 g				
	This certified reference material (CRM) is prepared from naturally contaminated mussel tissues (<i>Mytilus edulis</i>) containing azaspiracids. This CRM is designed to assist the analyst in assessing entire analytical methods used to monitor AZA toxins in shellfish tissues. Each bottle contains ~8 g of mussel homogenate with AZAs at levels appropriate for analytical testing.				
	Certified values				
	AZA1..... 1.16 µg/g		AZA2 0.273 µg/g		
	AZA3..... 0.211 µg/g				
NRCCRM-DSP-MUS-C	Mussel tissue - Okadaic acid and Dinophysistoxin-14 g				
	A thremally sterilized mix homogenate of mussel (<i>Mytilus edilus</i>) and a small amount of the dinoflagellate <i>Prorocentrum lima</i> .				
	Certified values				
	okadaic acid..... 1.07 µg/g		dinophysistoxin-2..... 0.86 µg/g		
	dinophysistoxin-1 1.07 µg/g		domoic acid (DA)11.8 µg/g		
NRCCRM-ZERO-MUS	Paralytic Shellfish Toxin Blank. Mussel Matrix8 g				
NRCDOLT-5	Dogfish liver - Trace elements20 g				
	Certified values				
	Arsenic..... 34.6 ± 2.4 mg/kg		Molybdenum 1.41 ± 0.22 mg/kg		
	Cadmium..... 14.5 ± 0.6 mg/kg		Potassium... 14,400 ± 3,000 mg/kg		
	Calcium..... 550 ± 80 mg/kg		Selenium..... 8.3 ± 1.8 mg/kg		
	Cobalt..... 0.267 ± 0.026 mg/kg		Silver..... 2.05 ± 0.08 mg/kg		
	Copper..... 35.0 ± 2.4 mg/kg		Sodium..... 9,900 ± 1,600 mg/kg		
	Iron..... 1071 ± 80 mg/kg		Strontium..... 3.73 ± 0.26 mg/kg		
	Lead..... 0.162 ± 0.032 mg/kg		Tin..... 0.069 ± 0.036 mg/kg		
	Magnesium... 940 ± 100 mg/kg		Vanadium..... 0.51 ± 0.06 mg/kg		
	Mercury..... 0.44 ± 0.18 mg/kg		Zinc..... 105.3 ± 5.4 mg/kg		
	Reference values for Aluminium, Nickel, Chromium Methylmercury (as Hg) and Manganese.				
	NRCDORM-4	Fish protein - Trace elements20 g			
		Certified values			
Arsenic..... 6.80 ± 0.64 mg/kg		Mercury..... 0.410 ± 0.055 mg/kg			
Cadmium... 0.306 ± 0.015 mg/kg		Nickel..... 1.36 ± 0.22 mg/kg			
Copper..... 15.9 ± 0.9 mg/kg		Tin..... 0.056 ± 0.010 mg/kg			
Chromium... 1.87 ± 0.16 mg/kg		Selenium..... 3.56 ± 0.34 mg/kg			
Iron 341 ± 27 mg/kg		Zinc..... 52.2 ± 3.2 mg/kg			
Lead..... 0.416 ± 0.053 mg/kg		Methylmercury (as Hg) 0.354 ± 0.031 mg/kg			

Fish and shellfish products

NRCFEBS-1	Otolith - Trace elements				1 g
	NRCFEBS-1 is a saggital otolith reference material procured from red snapper (Lutjanus campechanus).				
	Certified values				
	Ba...	5.09 ± 0.23 mg/kg	Mg...	23.6 ± 1.3 mg/kg	Sr 2055 ± 79 mg/kg
	Ca...	.38.3 ± 1.4 %	Mn...	0.686 ± 0.016 mg/kg	
	Li...	0.305 ± 0.044 mg/kg	Na...	2594 ± 161 mg/kg	
	Indicative values for Cd, Cu, Ni, Pb, Zn				
NRCLUTS-1	Non-defatted Lobster Hepatopancreas - Trace elements and methyl-mercury				6 x 10 g
	Prepared from edible grade lobster tomalley. Except for the addition of some water and a small quantity of antioxidant the sample is natural biological material containing 55 % lipids on a dry weight basis.				
	<u>As bottled</u>				
	Certified values				
	Ag.....	0.580 mg/kg	K.....	948 mg/kg	
	As.....	2.83 mg/kg	Mg.....	89.5 mg/kg	
	Ca.....	203 mg/kg	Mn.....	1.20 mg/kg	
	Cd.....	2.12 mg/kg	Ni.....	0.200 mg/kg	
	Co.....	0.051 mg/kg	Pb.....	0.010 mg/kg	
	Cr.....	0.079 mg/kg	Se.....	0.641 mg/kg	
	Cu.....	15.9 mg/kg	Sr.....	2.46 mg/kg	
	Fe.....	11.6 mg/kg	Zn.....	12.4 mg/kg	
	Hg.....	0.0167 mg/kg	Methylmercury (as Hg)	0.0094 mg/kg	
	<u>Dry weight</u> Certified values				
	Ag.....	3.89 mg/kg	K.....	6360 mg/kg	
	As.....	19.0 mg/kg	Mg.....	601 mg/kg	
	Ca.....	1360 mg/kg	Mn.....	8.02 mg/kg	
	Cd.....	14.2 mg/kg	Ni.....	1.34 mg/kg	
	Co.....	0.34 mg/kg	Pb.....	0.069 mg/kg	
	Cr.....	0.53 mg/kg	Se.....	4.30 mg/kg	
Cu.....	107 mg/kg	Sr.....	16.5 mg/kg		
Fe.....	77.8 mg/kg	Zn.....	82.9 mg/kg		
	Hg.....	0.112 mg/kg	Methylmercury (as Hg)	0.063 mg/kg	
NRCTORT-3	Lobster hepatopancreas - Trace elements and methyl-mercury				15 g
	Partially defatted lobster hepatopancreas prepared from edible grade lobster tomalley.				
	Certified values				
	As.....	59.5 mg/kg	Ni.....	5.30 mg/kg	
	Cd.....	42.3 mg/kg	Pb.....	0.225 mg/kg	
	Co.....	1.06 mg/kg	Se.....	10.9 mg/kg	
	Cr.....	1.95 mg/kg	Sr.....	36.5 mg/kg	

Fish and shellfish products

Cu.....	497 mg/kg	V.....	9.1 mg/kg
Fe.....	179 mg/kg	Zn.....	136 mg/kg
Hg.....	0.292 mg/kg	Arsenobetaine (as As)	54.9 mg/kg
Mn.....	15.6 mg/kg	Methylmercury (as Hg)..	0.137 mg/kg
Mo.....	3.44 mg/kg		
Indicative values			
Co.....	1.06 mg/kg	Sn.....	0.029 mg/kg

Meat and meat products

Code	Product	Unit			
LGC7220	Horse meat (100%)	10 g			
LGC7221	Beef (100%)	10 g			
LGC7222	Pork (100%)	10 g			
LGC7223	Sheep meat (100%)	10 g			
LGC7224	Chicken meat (100%)	10 g			
LGC7225	Turkey meat (100%)	10 g			
LGC7240	Horse meat (1%) in beef	3 x 2 g			
LGC7241	Horse meat (10%) in beef	3 x 2 g			
LGC7242	Pork (1%) in beef	3 x 2 g			
LGC7243	Pork (10%) in beef	3 x 2 g			
LGC7244	Chicken (1%) in sheep	3 x 2 g			
LGC7245	Chicken (5%) in sheep	3 x 2 g			
LGC7246	1% Turkey meat in sheep meat	3 x 2 g			
LGC7247	5% Turkey meat in sheep meat	3 x 2 g			
LGC7248	Beef in sheep meat	3 x 2 g			
LGC7249	Beef in sheep meat	3 x 2 g			
BCR-163	Beef/pork fat blend - Fatty acids				
	2 amps.				
	The entire fatty acid (methyl ester) profile was determined but certified values are only given for the major components (>2%) and indicative values are given for all minor components.				
	<u>Methyl esters</u>				
	(mass fraction fatty acid methyl ester/total fatty acid methyl ester)				
	Certified values				
	14:0 n-Tetradecanoic acids	2.29 g/100 g			
	16:0 n-Hexadecanoic acid.	25.96 g/100 g			
	16:1 n-Hexadecanoic acids	2.58 g/100 g			
	18:0 n-Octadecenoic acids	18.29 g/100 g			
	18:1 n-Octadecenoic acids	38.34 g/100 g			
	18:2 n-Octadecadienoic acids	7.05 g/100 g			
18:3 n-Octadecatrienoic acids	0.86 g/100 g				
BCR-163	<u>Sterols</u>				
	(mass fraction in fat)				
	Certified value				
	Cholesterol 133.6 mg/100 g				
	Indicative values for additional methyl esters of fatty acids				
BCR-185R	Bovine liver - Trace elements				
	15 g				
	Certified values				
As.....	33.0 mg/kg	Mn...	11.07 mg/kg	Zn...	138.6 mg/kg

Meat and meat products

	Cd..... 544 mg/kg Cu..... 277 mg/kg	Pb... 172 mg/kg Se... 1680 mg/kg
BCR-412	Bovine muscle - Diethylstilbestrol BCR-412 is intended to be used for the quality control of methods determining diethylstilbesterol. It can be used to establish recovery values and detection limits through spiking experiments and also to check the specificity of a method. Certified value Diethylstilbestrol <0.1 µg/L	5 g
BCR-444	Porcine muscle - Chloramphenicol (blank) Certified value Chloramphenicol <0.2 µg/kg	7 g
BCR-474/475	Bovine liver - Trenbolone Set of 2 x 2.8 g lyophilised liver powder Certified values <u>BCR-474</u>..... 17alpha-Trenbolone <0.5 µg/kg <u>BCR-475</u>..... 17alpha-Trenbolone 7.6 µg/kg	set
BCR-487	Pig liver - Vitamins Certified values B1 (thiamin)..... 8.6 mg/kg B6 (total pyridoxine) 19.3 mg/kg Folate (total)..... 13.3 mg/kg	15 g
BCR-648-9	Bovine liver - Clenbuterol Set of 2 x 10 g lyophilised bovine liver Certified values <u>BCR-648</u>..... Clenbuterol... <0.5 µg/kg <u>BCR-649</u>..... Clenbuterol... 1.2 µg/kg	set
BCR-695	Pig liver - Chlortetracycline Certified value Chlortetracycline < 0.004 mg/kg	Vial
BCR-696	Pig liver - Chlortetracycline Certified value Chlortetracycline 0.58 ± 0.11 mg/kg	Vial
BCR-697	Pig muscle - Chlortetracycline Certified value Chlortetracycline < 0.006 mg/kg	Vial
BCR-706	Pig kidney - Chlortetracycline Certified value Chlortetracycline < 0.005 mg/kg	Vial

Meat and meat products

BCR-707	Pig Kidney - Chlortetracycline (CTC) Certified value Chlortetracycline (CTC) 1.30 mg/kg	5 g
ERM-BB124	Pork muscle - Nitroimidazoles Nitroimidazoles in the reconstituted material Compound Certified value µg/kg Uncertainty µg/kg Ronidazole (RNZ).....2.09.....0.25 Metronidazole (MNZ).....1.93.....0.15 2-hydroxymethyl-1-methyl-5-nitroimidazole (HMMNI)0.69.....0.09 Hydroxymetronidazole (MNZOH)6.2.....0.9 Hydroxyipronidazole (IPZOH)1.670.12 Dimetridazole (DMZ)< 0.25	10 g
ERM-BB130	Pork muscle - Chloramphenicol Certified value Chloramphenicol. 0.230 ± 0.021µg/kg	bottle
ERM-BB184	Bovine muscle - Trace elements Certified values As..... 0.0234 mg/kg Mn 0.276 mg/kg Cd 0.0022 mg/kg Se..... 0.45 mg/kg Cu 2.31 mg/kg Zn 146 mg/kg Fe..... 75 mg/kg Indicative values for Hg	7 g
ERM-BB186	Pig kidney - Trace elements Certified values Cd..... 1.09 mg/kg Cu... 36.5 mg/kg Fe... 255 mg/kg Mn..... 7.26 mg/kg Pb... 0.040 mg/kg Se... 10.3 mg/kg Zn..... 134 mg/kg	10 g
ERM-BB384	Pork muscle - Proximates and essential elements One set consists of two amber glass vials each containing about 18 g of lyophilised pork muscle filled under protective atmosphere (argon). Certified value Uncertainty Kjeldahl nitrogen..... 14.2 g/100 g0.4 g/100 g Total fat..... 8.99 g/100 g0.20 g/100 g Ash..... 4.51 g/100 g0.19 g/100 g Na 1.86 mg/g0.15 mg/g Mg..... 1.03 mg/g0.04 mg/g Ca 0.164 mg/g0.021 mg/g P 8.7 mg/g0.5 mg/g	2 vials

Meat and meat products

ERM-BB430	Pork fat - Organochlorine pesticides 5 g The sample is a homogeneous pork fat spiked with organochlorine pesticides.		
			Compound Certified value mg/kg Uncertainty mg/kg
			HCB 0.1930.017
			alpha-HCH..... 0.25.....0.04
			beta-HCH..... 0.1090.010
			beta-HEPO 0.213.....0.016
			p,p'-DDT 0.48.....0.07
			p,p'-DDD 0.222.....0.022
			p,p'-DDE 0.38.....0.09
ERM-BB444	Pork fat - PCBs (blank) 5 g Certified values		
			PCB 28 <2 µg/kg PCB 118.....<2 µg/kg PCB <2 µg/kg
			PCB 52 <2 µg/kg PCB 138.....<2 µg/kg PCB sum ... <14 µg/kg
			PCB 101 <2 µg/kg PCB 153.....<2 µg/kg
			Indicative value for 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)
ERM-BB445	Pork fat - PCBs (low level) 5 g Compound Certified value µg/kg Uncertainty µg/kg		
			PCB 28 14.8.....1.3
			PCB 52 12.9.....0.9
			PCB 101 12.5.....1.2
			PCB 118 12.7.....1.3
			PCB 138 14.6.....1.6
			PCB 153 13.1.....1.1
			PCB 180 12.6.....0.9
			PCB sum 93.....7
			Indicative value for 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)
ERM-BB446	Pork fat - PCB (high level) 5 g Compound Certified value µg/kg Uncertainty µg/kg		
			PCB 28 29.6.....2.1
			PCB 52 25.51.8
			PCB 101 30.....4
			PCB 118 30.2.....2.7
			PCB 138 324
			PCB 153 30.8.....2.4
			PCB 180 29.8.....2.5
			PCB sum 207.....11
			Indicative value for 2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)

Meat and meat products

NIST-1546A

Meat homogenate - Nutrients

4 x 85 g

This Standard Reference Material (SRM) is intended primarily for validation of methods for determining fatty acids, cholesterol, proximates, calories, elements, vitamins, and amino acids in canned meat products and similar materials. This SRM can also be used for quality assurance when assigning values to in-house reference materials. The meat homogenate is a mixture of pork and chicken products blended together in a commercial process.

Certified values for mass fractions for Fatty Acids (as Free Fatty Acids) and Cholesterol.

Dodecanoic Acid (C12:0).....	0.0153 ± 0.0011 (g/100 g)
Tetradecanoic Acid (C14:0).....	0.245 ± 0.023 (g/100 g)
(Z)-9-Tetradecenoic Acid (C14:1 n-5).....	0.118 ± 0.0028 (g/100 g)
Hexadecanoic Acid (C16:0).....	4.63 ± 0.53 (g/100 g)
(Z)-9-Hexadecenoic Acid (C16:1 n-7).....	0.618 ± 0.078 (g/100 g)
Octadecanoic Acid (C18:0).....	2.18 ± 0.32 (g/100 g)
(Z)-9-Octadecenoic Acid (C18:1 n-9).....	8.09 ± 0.40 (g/100 g)
(Z)-11-Octadecenoic Acid (C18:1 n-7).....	0.324 ± 0.017 (g/100 g)
(Z,Z)-9,12-Octadecadienoic Acid (C18:2 n-6).....	3.32 ± 0.42 (g/100 g)
(Z,Z,Z)-9,12,15-Octadecatrienoic Acid (C18:3 n-3).....	0.133 ± 0.020 (g/100 g)
Eicosanoic Acid (C20:0).....	0.0329 ± 0.0009 (g/100 g)
(Z)-11-Eicosenoic Acid (C20:1 n-9).....	0.1322 ± 0.0044 (g/100 g)
(Z,Z,Z,Z)-5,8,11,14-Eicosatetraenoic Acid (C20:4 n-6)	0.0201 ± 0.0011 (g/100 g)
Docosanoic Acid (C22:0).....	0.0442 ± 0.0010 (g/100 g)
Tetracosanoic Acid (C24:0).....	0.0068 ± 0.0003 (g/100 g)
(Z)-15-Tetracosenoic Acid (C24:1 n-9).....	0.0228 ± 0.0009 (g/100 g)
Cholesterol(d).....	0.717 ± 0.022 (mg/g)

Certified Mass Fraction Values for Elements in SRM 1546a

Copper (Cu)	0.605 ± 0.051 (mg/kg)	Potassium (K)	2490 ± 210 (mg/kg)
Iron (Fe)	10.17 ± 0.35 (mg/kg)	Selenium (Se)	0.288 ± 0.009 (mg/kg)
Magnesium (Mg)	178.1 ± 4.8 (mg/kg)	Sodium (Na)	9600 ± 1100 (mg/kg)
Manganese (Mn)	0.286 ± 0.024 (mg/kg)	Zinc (Zn)	17.88 ± 0.35 (mg/kg)
Phosphorus (P)	1651 ± 32 (mg/kg)		

Certified Mass Fraction Values for Vitamins in SRM 1546a

Niacin (Vitamin B3).....	0.401 ± 0.022 (mg/kg)
Niacinamide (Vitamin B3).....	38.18 ± 0.74 (mg/kg)
Total Vitamin B3 as Niacinamide	41.0 ± 4.8 (mg/kg)
Pantothenic Acid (Vitamin B5).....	4.58 ± 0.59 (mg/kg)
Pyridoxamine Dihydrochloride (Vitamin B6).....	0.390 ± 0.078 (mg/kg)

Meat and meat products

	Reference mass fraction values, reported on an as-received basis, are also provided for additional fatty acids, additional elements, additional vitamins, proximates, calories and amino acids. A NIST reference value is a noncertified value that is the best estimate of the true value based on available data; however, the value does not meet the NIST criteria for certification and is provided with associated uncertainties that may reflect only measurement reproducibility, may not include all sources of uncertainty, or may reflect a lack of sufficient statistical agreement among multiple analytical methods. The reference mass fraction values were derived from results reported by NIST or collaborating laboratories.					
NIST-1577C	Bovine liver - Trace elements				20 g	
	Standard Reference Material (SRM) 1577c consists of tissue derived from healthy steers. The material was collected and prepared under strict protocols designed to preserve the original composition, and to minimize contamination. NIST-1577c is intended primarily for use in evaluating the accuracy of analytical methods for selected elements in animal tissues and other biological materials. A unit of the SRM consists of one bottle containing 20 g of freeze-dried liver powder.					
	Certified values for mass fractions (on a dry-mass basis) of selected elements					
	Ag	5.9 ± 1.6 µg/kg	Fe	197.94 ± 0.65 mg/kg	Pb	62.8 ± 1.0 µg/kg
	As	19.6 ± 1.4 µg/kg	K	1.023 ± 0.064 %	S	0.749 ± 0.034 %
	Ca	131 ± 10 mg/kg	Mg	620 ± 42 mg/kg	Se	2.031 ± 0.045 mg/kg
	Cd	97.0* ± 1.4 µg/kg	Mn	10.46 ± 0.47 mg/kg	Sr	95.3 ± 4.2 µg/kg
	Co	0.300 ± 0.018 mg/kg	Mo	3.30 ± 0.13 mg/kg	V	8.17 ± 0.66 µg/kg
	Cr	53 ± 14 µg/kg	Na	0.2033 ± 0.0064 %	Zn	181.1 ± 1.0 mg/kg
	Cu	275.2 ± 4.6 mg/kg	Ni	44.5 ± 9.2 µg/kg		

Milk and dairy products

Code	Product	Unit
BCR-187	Natural milk powder - Pesticides	20 g
	Compound	Certified value Uncertainty
	HCb	1.50.....0.2
	alpha-HCH.....	1.8.....0.14
	gamma-HCH.....	5.7.....0.7
	4,4'-DDE	6.60.6
BCR-188	Milk powder (spiked) - Pesticides	20 g
	Compound	Certified value µg/kg Uncertainty µg/kg
	HCb	37.4.....2.7
	beta-HCH.....	12.0.....1.2
	gamma-HCH.....	45.42.9
	beta-Heptachlor epoxide	32.0.....1.8
	4,4'-DDE	51.33.5
	Dieldrin	36.12.4
	Endrin	6.20.9
	4,4'-DDT	69.0.....4.6
BCR-450	Natural milk powder - PCBs	20 g
	Compound	Certified value µg/kg Uncertainty µg/kg
	PCB 52	1.16.....0.17
	PCB 118	3.3.....0.4
	PCB 153	19.0.....0.7
	PCB 156	1.62.....0.2
	PCB 170	4.8.....0.6
	PCB 180	11.0.....0.7
BCR-519	Anhydrous butter fat - Triglycerides	2 amps.
	Triglyceride contents of an anhydrous butter fat with additional value for free cholesterol.	
	Compound	Certified value mass fraction (%) Uncertainty mass fraction (%)
	Cholesterol.....	0.30.....0.03
	C24.....	0.05.....0.02
	C26.....	0.25.....0.03
	C28.....	0.59.....0.04
	C30.....	1.15.....0.05
	C32.....	2.43.....0.12
	C34.....	5.64.....0.18
	C36.....	10.47.....0.19
	C38.....	12.53.....0.22
	C40.....	10.03.....0.16

Milk and dairy products

	C42.....	6.69.....	0.10
	C44.....	6.11.....	0.08
	C46.....	6.86.....	0.08
	C48.....	8.69.....	0.15
	C50.....	11.40.....	0.24
	C52.....	10.96.....	0.25
	C54.....	5.89.....	0.13
BCR-528	Bacillus cereus in milk powder10 caps BCR-528 consists of 0.317 g artificially contaminated with spray dried milk contained in an ochre/white gelatine capsule. The strain used for the contamination is Bacillus cereus (ATCC 9139). Colony forming particles of Number of colony forming particles (cfp) Bacillus cereus according to the procedure Certified value [cfp/capsule] Uncertainty interval [cfp/capsule] MEYP (ISO 7932) after 24 h incubation.....53.4..... 51.7 – 55.2 MEYP (ISO 7932) after 48 h incubation.....53.7..... 52.1 – 55.4 PEMBA (L 00.00 - 25) after 24 h incubation.....55.0..... 52.8 – 57.4 PEMBA (L 00.00 - 25) after 48 h incubation.....55.8..... 53.6 – 58.0 Indicative value for colony forming particles of Bacillus cereus according to the procedure SBA (Analysis no 67) after 24 hour incubation Dry ice shipment required		
BCR-599	Ewes'/Goats' curd - Adulteration with cows' milkset (2) Two freeze dried curd materials made from a mixture of ewes' and goats' milk intended to detect adulteration by cows' milk in cheeses made from ewes' milk, goats' milk and mixtures of the two. Unadulterated material 0% cows' milk Adulterated material 1% cows' milk		
BCR-607	Natural spray dried milk powder - Dioxins and furans100 g Compound Certified value ng/kg Uncertainty ng/kg 2,3,7,8-TCDD..... 0.25..... 0.03 1,2,3,7,8-PeCDD..... 0.79..... 0.04 1,2,3,4,7,8-HxCDD..... 0.42..... 0.07 1,2,3,6,7,8-HxCDD..... 0.98..... 0.11 1,2,3,7,8,9-HxCDD..... 0.34..... 0.05 2,3,7,8-TCDF..... 0.05..... 0.03 1,2,3,7,8-PeCDF..... 0.054 0.013 2,3,4,7,8-PeCDF..... 1.81..... 0.13 1,2,3,4,7,8-HxCDF..... 0.94..... 0.04 1,2,3,6,7,8-HxCDF..... 1.01..... 0.09 2,3,4,6,7,8-HxCDF..... 1.07..... 0.05		
BCR-633	Anhydrous butter fat - TracersAmp. Compound Certified value mg/kg Uncertainty mg/kg		

Milk and dairy products

	β -Apo-8'-carotenic acid ethyl ester 26.5.....1.4 β -Sitosterol530.....29 Stigmasterol..... 147.....11 n-Heptanoic acid triglyceride 1.06×10^4 0.04×10^4	
ERM-BB492-3	Partially skimmed milk powder - Oxytetracycline Set of ERM-BB-492 and ERM-BB -493 One unit contains approximately 5.5 g of spray-dried partially skimmed milk filled under inert gas in a 30 mL amber glass vial. The water mass fraction of the spray-dried powder is 2.5 ± 0.08 g/100g. ERM-BB-492 Certified value Oxytetracycline.....101 $\pm$ 11 μ g/kg (sum of oxytetracycline and 4-epioxytetracycline) ERM-BB -493 Certified value Oxytetracycline.....<5 μ g/kg (sum of oxytetracycline and 4-epioxytetracycline)	set
ERM-BD150	Milk powder - Essential nutrients and trace elements Certified values Ca 13.9 g/kg Cu..... 36.5 mg/kg Cl..... 9.7 g/kg Fe 255 mg/kg K..... 17.0 g/kg Mn 7.26 mg/kg Mg 1.26 g/kg Pb..... 0.040 mg/kg Na 4.18 g/kg Se..... 10.3 mg/kg P..... 11.0 g/kg Zn 134 mg/kg Cd 1.09 mg/kg	20 g
ERM-BD151	Milk powder - Essential nutrients and trace elements Certified values Ca..... 13.9 g/kg Fe..... 53 mg/kg Cl..... 9.8 g/kg Hg..... 0.52 mg/kg K..... 17.0 g/kg I..... 1.78 mg/kg Mg..... 1.26 g/kg Mn..... 0.29 mg/kg Na..... 4.19 g/kg Pb..... 0.207 mg/kg P..... 11.0 g/kg Se..... 0.19 mg/kg Cd..... 0.106 mg/kg Zn..... 44.9 mg/kg Cu..... 5.00 mg/kg	20 g

Milk and dairy products

ERM-BD282	Whole milk powder - Aflatoxin M1 (zero level)	30 g
	Compound Certified value µg/kg	
	Aflatoxin M1 < 0.02	
ERM-BD283	Whole milk powder - Aflatoxin M1 (low level)	30 g
	Compound Certified value µg/kg Uncertainty µg/kg	
	Aflatoxin M1 0.111.....0.018	
ERM-BD284	Whole milk powder - Aflatoxin M1 (high level)	30 g
	Compound Certified value µg/kg Uncertainty µg/kg	
	Aflatoxin M1 0.44.....0.06	
ERM-BD600	Whole milk powder - Vitamins	100g
	A (all-trans-retinol) 3.8 ± 0.6 mg/kg	
	B12 (cyanocobalamin)0.32 ± 0.07 mg/kg	
	A (all-trans-retinol & 13-cis-retinol)..... 4.1 ± 0.8 mg/kg	
	C (total ascorbate) 74 ± 11 mg/kg	
	B1 (thiamin) 4.5 ± 0.6 mg/kg	
	E (tocopherol) 86 ± 15 mg/kg	
	B2 (riboflavin) 16.7 ± 1.4 mg/kg	
NIST-1549A	Whole Milk Powder	5 x 10
	NIST-1549a is intended primarily intended primarily for validation of methods for determining proximates, fatty acids, cholesterol, vitamins, elements, and amino acids in whole milk powder and similar materials. This SRM can also be used for quality assurance when assigning values to in-house reference materials.The SRM is a whole milk powder prepared by a commercial manufacturer. A unit of SRM 1549a consists of five heat-sealed aluminized pouches, each containing approximately 10 g of material.	
	Certified mass fraction values for fatty acids as free fatty acids and cholesterol.	
	Octanoic acid (C8:0) (Caprylic acid) 0.338 ± 0.009%	
	Dodecanoic acid (C12:0) (Lauric acid) 0.8125 ± 0.090%	
	Tetradecanoic acid (C14:0) (Myristic acid) 2.62 ± 0.20%	
	(Z)-9-Tetradecenoic acid (C14:1) (Miyristoleic acid) 0.302 ± 0.040%	
	Hexadecanoic acid (C16:0) (Palmitic acid) 6.98 ± 0.47%	
	(Z)-9-Hexadecenoic acid (C16:1 n-7) (Palmitoleic acid) 0.404 ± 0.0264%	
	Octadecanoic acid (C18:0) (Stearic acid) 2.68 ± 0.19%	
	(Z)-9-Octadecenoic acid (C18:1 n-9) (Oleic acid) 10.2 ± 1.1%	
	(Z)-11-Octadecenoic acid (C18:1 n-7) (Vaccenic acid) 0.160 ± 0.027%	
	(Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6) 0.689 ± 0.060% (Linoleic acid)	
	(Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3) 0.138 ± 0.010% (α-Linolenic acid)	
	Cholesterol 0.981 ± 0.071 mg/g	
	Certified mass fraction values for selected elements	
	Barium 0.566 ± 0.039 mg/kg	
	Selenium 0.242 ± 0.026 mg/kg	
	Calcium..... 8810 ± 240 mg/kg	
	Sodium.....3176 ± 58 mg/kg	

Milk and dairy products

	Magnesium 892 ± 62 mg/kg Strontium 2.14 ± 0.19 mg/kg Manganese..... 0.184 ± 0.024 mg/kg Zinc 33.8 ± 2.3 mg/kg Phosphorous 7600 ± 500 mg/kg Certified concentrations for selected vitamins Ascorbic acid (Vitamin C) 41.9 ± 2.5 mg/kg Pantothenic acid 33.7 ± 2.7 mg/kg Thiamine Hydrochloride 1.365 ± 0.029 mg/kg Total Vitamin B6 as Pyridoxidal..... 2.46 ± 0.20 mg/kg Riboflavin (Vitamin B2) 10.6 ± 1.9 mg/kg Pyridoxidal 2.09 ± 0.20 mg/kg Niacinamide..... 5.91 ± 0.39 mg/kg Pyridoxamine 0.372 ± 0.033 mg/kg Reference mass fraction values, reported on an as-received basis, are provided for additional elements, additional vitamins, choline, and carnitine, proximates, additional fatty acids, calories and amino acids.	
NIST-1849A	Infant/Adult nutritional powder (milk) - Trace elements, proximates and nutrients 10 x 10 g NIST-1849a is intended primarily for validation of methods for determining proximates, fatty acids, vitamins, elements, amino acids and nucleotides in infant and adult nutritional formulas and similar materials. It can also be used for quality assurance when assigning values to in-house reference materials. This material is a milk- based, hybrid infant/adult nutritional powder prepared by a manufacturer of infant formula and adult nutritional products. A unit of NIST-1849a consists of 10 packets, each containing approximately 10 g of material. Certified mass fraction values for fatty acids as free fatty acids and cholesterol Octanoic acid (C8:0) (Caprylic acid) 0.588 ± 0.049% Dodecanoic acid (C12:0) (Lauric acid) 2.877 ± 0.092% Tetradecanoic acid (C14:0) (Myristic acid) 0.968 ± 0.032% (Z)-9-Tetradecenoic acid (C14:1) (Miyristoleic acid) 0.0023 ± 0.0001% Hexadecanoic acid (C16:0) (Palmitic acid) 1.99 ± 0.22% (Z)-9-Hexadecenoic acid (C16:1 n-7) (Palmitoleic acid) 0.0221 ± 0.0014% Octadecanoic acid (C18:0) (Stearic acid) 0.835 ± 0.017% (Z)-9-Octadecenoic acid (C18:1 n-9) (Oleic acid) 10.2 ± 1.1% (Z)-11-Octadecenoic acid (C18:1 n-7) (Vaccenic acid) 0.2034 ± 0.0068% (Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6) (Linoleic acid) 5.24 ± 0.42% (Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3) (α-Linolenic acid) 0.516 ± 0.050% Eicosanoic acid (C20:0) (Arachidic acid) 0.0808 ± 0.0026% (Z)-11 Eicosenoic acid (C20:1 n-9) (Gondoic acid) 0.0589 ± 0.0037% Docosanoic acid (C22:0) (Behenic acid) 0.0642 ± 0.024% Tetracosanoic acid (C24:0) (Lignoceric acid) 0.0333 ± 0.0016% (Z)-15-Tetracosenoic acid (C24:1 n-9) (Nervonic acid) 0.0207 ± 0.0015% Certified mass fraction values for selected elements	

Milk and dairy products

Ca.....	5253 ± 51 mg/kg	Mo.....	1.707 ± 0.040 mg/kg
Cu.....	19.78 ± 0.26 mg/kg	P.....	3990 ± 140 mg/kg
Cr.....	1.072 ± 0.032 mg/kg	K.....	9220 ± 110 mg/kg
Fe.....	175.6 ± 2.9 mg/kg	Se.....	0.812 ± 0.029 mg/kg
Mg.....	1648 ± 36 mg/kg	Na.....	4265 ± 83 mg/kg
Mn.....	49.2 ± 1.4 mg/kg	Zn.....	151.0 ± 5.6 mg/kg

Certified concentrations for selected vitamins

Ascorbic acid (Vitamin C).....	784 ± 65 mg/kg
Thiamine (Vitamin B1) Hydrochloride	12.57 ± 0.98 mg/kg
Riboflavin (Vitamin B2).....	20.37 ± 0.52 mg/kg
Niacinamide.....	109 ± 10 mg/kg
Pantothenic acid.....	68.2 ± 1.9 mg/kg
Pyridoxine (Vitamin B6) Hydrochloride	13.46 ± 0.93 mg/kg
Folic acid.....	2.293 ± 0.062 mg/kg
Biotin.....	1.99 ± 0.13 mg/kg
Choline ion.....	1090 ± 110 mg/kg
Carnitine.....	136 ± 14 mg/kg
Retinol (Vitamin A).....	7.68 ± 0.23 mg/kg
Cholecalciferol (Vitamin D3).....	0.111 ± 0.017 mg/kg
Phylloquinone (Vitamin K1).....	1.06 ± 0.17 mg/kg
Reference values for selected fatty acids as triglycerides, proximate, cholesterol, lactose, and calories, selected vitamins, amino acids and nucleotides	

Code	Product	Unit																																				
BCR-537	Plastic film A - Overall migration in olive oil Total immersion in olive oil for 10 days at 40°C Certified value: 8.3 mg/dm ²	film																																				
BCR-539	Plastic film C - Overall migration in olive oil Pouch in olive oil for 10 days at 40°C Certified value: 6.1 mg/dm ²	film																																				
NIST-2855	Polyethylene - Additive elements This Standard Reference Material (SRM) is intended for the calibration or evaluation of methods for elemental analysis of polymers. A unit of SRM 2855 consists of one bottle of Level I low-density polyethylene, one bottle of Level II high-density polyethylene, and one bottle of Level III high-density polyethylene. Each bottle contains approximately 80 g of material in pellet form. Certified values for NIST-2855 Level II and Level III <table><tr><td>Na</td><td>16.0 ± 1.5mg/kg</td><td>Ca.....</td><td>37.6 ± 5.1mg/kg</td><td>Zn.....</td><td>415 ± 20mg/kg</td></tr><tr><td>P</td><td>22.0 ± 1.5mg/kg</td><td>Ti</td><td>10.4 ± 0.3mg/kg</td><td></td><td></td></tr><tr><td>S</td><td>21.0 ± 1.4mg/kg</td><td>Cr</td><td>2.4 ± 0.5mg/kg</td><td></td><td></td></tr></table> Level III <table><tr><td>Na</td><td>16.4 ± 1.3mg/kg</td><td>Ca.....</td><td>77.2 ± 2.4mg/kg</td><td>Zn.....</td><td>807 ± 15mg/kg</td></tr><tr><td>P</td><td>41.6 ± 2.9mg/kg</td><td>Ti</td><td>10.4 ± 0.3mg/kg</td><td></td><td></td></tr><tr><td>S</td><td>41.2 ± 3.1mg/kg</td><td>Cr</td><td>2.4 ± 0.5mg/kg</td><td></td><td></td></tr></table> Indicative values for Level I: Na, Si, P, S, Ca, Ti, Cr, Zn, Br. Cd, Hg and Pb Indicative values for Level II and Level II: Br. Cd. Hg and Pb	Na	16.0 ± 1.5mg/kg	Ca.....	37.6 ± 5.1mg/kg	Zn.....	415 ± 20mg/kg	P	22.0 ± 1.5mg/kg	Ti	10.4 ± 0.3mg/kg			S	21.0 ± 1.4mg/kg	Cr	2.4 ± 0.5mg/kg			Na	16.4 ± 1.3mg/kg	Ca.....	77.2 ± 2.4mg/kg	Zn.....	807 ± 15mg/kg	P	41.6 ± 2.9mg/kg	Ti	10.4 ± 0.3mg/kg			S	41.2 ± 3.1mg/kg	Cr	2.4 ± 0.5mg/kg			3 x 80g
Na	16.0 ± 1.5mg/kg	Ca.....	37.6 ± 5.1mg/kg	Zn.....	415 ± 20mg/kg																																	
P	22.0 ± 1.5mg/kg	Ti	10.4 ± 0.3mg/kg																																			
S	21.0 ± 1.4mg/kg	Cr	2.4 ± 0.5mg/kg																																			
Na	16.4 ± 1.3mg/kg	Ca.....	77.2 ± 2.4mg/kg	Zn.....	807 ± 15mg/kg																																	
P	41.6 ± 2.9mg/kg	Ti	10.4 ± 0.3mg/kg																																			
S	41.2 ± 3.1mg/kg	Cr	2.4 ± 0.5mg/kg																																			

Code	Product	Unit
BCR-162R	Soya-maize oil blend - Fatty acids	5.5 g
	Certified values	
	Fatty	Relative Mass Fraction in g FAME / 100 g total FAME
	16:0 (n-Hexadecanoic acid)	10.74 ± 0.16
	18:0 (n-Octadecanoic acid)	2.82 ± 0.04
	9c-18:1 (n-Octadecenoic acid)	25.4 ± 0.4
	9c,12c-18:2 (n-Octadecadienoic acid)	54.13 ± 0.25
	9c,12c,15c-18:3 (n-Octadecatrienoic acid)	3.35 ± 0.05
BCR-349	Cod liver oil - PCBs	2 g
	Compound	Certified value µg/kg Uncertainty µg/kg
	PCB 28	68.....8
	PCB 52	149.....21
	PCB 101	372.....18
	PCB 118	460.....40
	PCB 153	940.....40
	PCB 180	282.....23
BCR-446	Rapeseed - Oil content (low)	153 g
	Certified values	
	“As is” oil	39.49 g/100 g
	Moisture and volatiles	7.01 g/100 g
	Dry basis oil	42.48 g/100 g
BCR-459	Coconut oil - PAHs (blank)	45 g
	Compound	Certified value µg/kg
	Pyrene	<0.9
	Benzo(a)pyrene	<0.3
	Chrysene	<0.6
	Benzo(ghi)perylene.....	<0.2
	Benzo(k)fluoranthene	<0.2
	Indeno(1,2,3-cd)pyrene	<0.2
BCR-598	Cod liver oil - Organochlorine pesticides	5 g
	Compound	Certified value µg/kg Uncertainty µg/kg
	Hexachlorobenzene.....	55.7.....2
	alpha-HCH	42.....3
	beta-HCH.....	16.....3
	gamma-HCH.....	23.....4
	gamma-Chlordane.....	6.9.....1.6
	alpha-Chlordane	24.4.....1.8
	Oxychlordane	11.....1.8
	trans-Nonachlor	39.....4

	Dieldrin.....	59.....	4
	4,4'-DDE	0.61×10^3	0.04×10^3
	2,4'-DDD	30	4
	4,4'-DDD	0.40×10^3	0.03×10^3
	4,4'-DDT	0.179×10^3	0.018×10^3
ERM-BB350	Salmon oil - PCBs		2 g
	Compound	Certified value ng/kg	Uncertainty ng/kg
	³ Number of laboratories providing results for this analyte.		
	2,4,4'-Trichlorobiphenyl (PCB 28)	21.3.....	1.1
	2,2',5,5'-Tetrachlorobiphenyl (PCB 52)	37.4.....	2.2
	2,4,4',5-Tetrachlorobiphenyl (PCB 74)	23.....	1.9
	2,2',4,4',5-Pentachlorobiphenyl (PCB 99)	62.....	6
	2,2',4,5,5'-Pentachlorobiphenyl (PCB 101)	111.....	5
	2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	25.8.....	2.1
	2,3,3',4',6-Pentachlorobiphenyl (PCB 110)	54.1.....	2.8
	2,3',4,4',5-Pentachlorobiphenyl (PCB 118)	84.....	4
	2,2',3,4,4',5'-Hexachlorobiphenyl (PCB 138)	137.....	10
	2,2',3,4',5',6-Hexachlorobiphenyl (PCB 149)	88.....	9
	2,2',4,4',5,5'-Hexachlorobiphenyl (PCB 153)	220.....	11
	2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	20.1.....	1.3
	2,2',3,3',4,5',6'-Heptachlorobiphenyl (PCB 177)	25.8.....	2
	2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180)	67.....	4
	2,2',3,4,4',5',6-Heptachlorobiphenyl (PCB 183)	22.5.....	1.8
	2,2',3,4',5,5',6-Heptachlorobiphenyl (PCB 187)	67.....	5
	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (PCB 194)	23.4.....	1.5
	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (PCB 196)	41.....	7
NIST-3274	Botanical oils - Omega-3 and omega-6 fatty acids		4 x 1.2 mL
	This Standard Reference Material [®] (SRM [®]) is intended primarily for use in validating analytical methods for the determination of fatty acids in botanical oils and similar matrices. This SRM can also be used for quality assurance when assigning values to in-house control materials. A unit of SRM 3274 consists of a total of four ampoules, one each of four seed oils (3274-1 Borage [Borago officinalis], 3274-2 Evening Primrose [Oenothera biennis], 3274-3 Flax [Linum usitatissimum], and 3274-4 Perilla [Perilla frutescens]). Each ampoule contains approximately 1.2 mL of oil under argon.		
	Mass fraction (mg/g)		
	3274-1	3274-2	3274-3
	Borage	Evening Primrose	Flax
			3274-4
			Perilla
	Octanoic Acid (C8:0)		
		(0.053 ± 0.010)	(0.021 ± 0.002)
	(Caprylic Acid)		

Food oils

Decanoic Acid (C10:0) (Capric Acid)				(0.020 ± 0.011)
Dodecanoic Acid (C12:0) (Lauric Acid)			(0.016 ± 0.001)	
Tetradecanoic Acid (C14:0) (Myristic Acid)	(0.62 ± 0.11)	0.363 ± 0.030	0.271 ± 0.008	(0.206 ± 0.025)
Pentadecanoic Acid (C15:0)	0.074 ± 0.008	0.099 ± 0.011	0.151 ± 0.016	(0.061 ± 0.009)
Hexadecanoic Acid (C16:0) (Palmitic Acid)	110 ± 12	58.2 ± 6.1	44.8 ± 5.0	56.4 ± 5.5
(Z)-9-Hexadecenoic Acid (C16:1 n-7) (Palmitoleic Acid)	1.77 ± 0.14	0.402 ± 0.043	0.383 ± 0.031	0.776 ± 0.081
Heptadecanoic Acid (C17:0) (Margaric Acid)	(0.500 ± 0.086)	(0.188 ± 0.008)	(0.212 ± 0.011)	(0.159 ± 0.040)
Octadecanoic Acid (C18:0) (Stearic Acid)	(33.1 ± 4.0)	18.30 ± 0.838	30.4 ± 2.4	20.9 ± 1.1
(Z)-9-Octadecenoic Acid (C18:1 n-9) (Oleic Acid)	148.7 ± 8.7	68.9 ± 3.7	165.7 ± 6.2	166.8 ± 7.8
(E)-9-Octadecenoic Acid (t-C18:1 n-9) (Elaidic Acid)	(0.117 ± 0.020)			
(Z)-11-Octadecenoic Acid (C18:1 n-7) (Vaccenic Acid)	5.76 ± 0.18	5.95 ± 0.37	(5.61 ± 0.16)	(7.89 ± 0.22)
(Z,Z)-9,12-Octadecadienoic Acid (C18:2 n-6) (Linoleic Acid)	374 ± 35	742 ± 24	171 ± 11	160 ± 14
(Z,Z,Z)-9,12,15-Octadecatrienoic Acid (C18:3 n-3) (α-Linolenic Acid)	(3.45 ± 0.63)	(2.72 ± 0.51)	579 ± 30	629 ± 28
(Z,Z,Z)-6,9,12-Octadecatrienoic Acid (C18:3 n-6) (γ-Linolenic Acid)	251 ± 24	99.9 ± 4.1	(1.55 ± 0.25)	(2.08 ± 0.48)
Eicosanoic Acid (C20:0) (Arachidic Acid)	(2.13 ± 0.46)	(2.71 ± 0.37)	(1.04 ± 0.15)	(1.21 ± 0.26)
(Z)-11-Eicosenoic Acid (C20:1 n-9) (Gondoic Acid)		1.84 ± 0.12		
(Z,Z,Z,Z)-5,8,11,14-Eicosatetraenoic Acid (C20:4 n-6) (Arachidonic Acid)		(0.022 ± 0.002)	0.633 ± 0.029	
Heneicosanoic Acid (C21:0)	(2.36 ± 0.32)	(0.132 ± 0.029)		(0.083 ± 0.004)

Docosanoic Acid (C22:0) (Behenic Acid)	1.509 ± 0.070	(0.91 ± 0.25)	(0.62 ± 0.13)	(0.118 ± 0.004)
Tetracosanoic Acid (C24:0) (Lignoceric Acid)	(0.334 ± 0.074)	(0.369 ± 0.060)	(0.308 ± 0.059)	(0.096 ± 0.022)
(Z)-15-Tetracosenoic Acid (C24:1)	7.80 ± 0.61		0.084 ± 0.003	
() Indicative values Certified values in bold				
NIST-3275	Fish oil - Omega-3 and omega-6 fatty acids This Standard Reference Material (SRM [®]) is intended primarily for validation of methods for determining fatty acids in fish oils and similar materials. This SRM can also be used for quality assurance when assigning values to in-house reference materials. SRM 3275 consists of three individual oils: NIST-3275-1, a concentrate high in docosahexaenoic acid (DHA); NIST-3275-2, an anchovy oil high in DHA and eicosapentaenoic acid (EPA); and NIST-3275-3, a concentrate containing 60 % long-chain omega-3 fatty acids. A unit of NIST-3275 consists of two ampoules of each of the three oils, each ampoule containing approximately 1.2 mL of material. Certified mass fraction values for fatty acids as fatty acid methyl esters (FAMES)			6 x 1.2 mL
		Mass fraction (mg/kg)		
		SRM 3275-1	SRM 3275-2	SRM 3275-3
Dodecanoic acid (C12:0; Lauric acid)				0.95 ± 0.12
Tetradecanoic acid (C14:0; Myristic acid)		1.094 ± 0.053	3.45 ± 0.40	67.9 ± 1.5
Hexadecanoic acid (C16:0; Palmitic acid)		5.25 ± 0.35	8.01 ± 0.44	186.9 ± 9.4
(Z)-9-Hexadecenoic acid (C16:1 n-7 Palmitoleic acid)		7.43 ± 0.24	5.83 ± 0.45	85.7 ± 3.1
Octadecanoic acid (C18:0; Stearic acid)		4.22 ± 0.13	12.94 ± 0.62	38.0 ± 5.7
(Z)-9-Octadecenoic acid (C18:1 n-9 Oleic acid)		11.25 ± 0.93	22.1 ± 1.6	112.3 ± 2.6
(Z)-11-Octadecenoic acid (C18:1 n-7 Vaccenic acid)		5.33 ± 0.35	9.24 ± 0.77	38.5 ± 2.2
ω-6 (Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6 Linoleic acid)		2.31 ± 0.19	3.00 ± 0.42	13.49 ± 0.45
ω-3 (Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3 α-Linolenic acid; ALA)			14.99 ± 0.37	9.08 ± 0.22
Eicosanoic acid (C20:0; Arachidic acid)			0.357 ± 0.027	1.14 ± 0.26
(Z)-11-Eicosenoic acid (C20:1 n-9 Gondoic acid)			6.66 ± 0.69	2.92 ± 0.14
ω-3 (Z,Z,Z,Z)-5,8,11,14,17-Eicosapentaenoic acid (C20:5 n-3; EPA)		113 ± 12	460 ± 34	199.1 ± 7.8
Docosanoic acid (C22:0; Behenic acid)		4.02 ± 0.24	1.396 ± 0.046	0.502 ± 0.047

Food oils

ω-3 (Z,Z,Z,Z,Z)-4,7,10,13,16,19-Docosahexaenoic acid C22:6 n-3; DHA	524 ± 42	267 ± 12	163.5 ± 7.2
(Z)-13-Docosenoic acid (C22:1 n-9; Erucic acid)		3.43 ± 0.32	
(Z,Z,Z,Z,Z)-7,10,13,16,19-Docosapentaenoic acid C22:5; DPA	87.2 ± 6.7	81.5 ± 4.4	37.9 ± 2.9
Tetracosanoic acid (C24:0; Lignoceric acid)		1.41 ± 0.13	
Indicative values for further fatty acids as fatty acid methyl esters.			
NIST-3278	Edible oils - Tocopherols This Standard Reference Material® (SRM®) is intended primarily for use in validating analytical methods for the determination of tocopherols in edible oils and similar matrices. This SRM can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-3278 consists of five ampoules of oil each containing approximately 1 mL of material under argon. Certified mass fraction values for tocopherols in NIST-3278 alpha-Tocopherol..... 290.1 ± 6.5 µg/g gamma-Tocopherol.....111.5 ± 5.8 µg/g beta-Tocopherol 11.38 ± 0.52 µg/g delta-Tocopherol28.8 ± 1.8 µg/g		

Code	Product	Unit												
LGCQC101-KT	Peanut allergen in chocolate dessert positive & negative control The materials are intended for use as quality control materials for analytical methods used in the determination of peanut protein in foods. They are not suitable for establishing method bias. The concentration of peanut protein in the reconstituted chocolate mousse dessert LGCQC1012 is based on the gravimetric preparation data. No peanut protein was added to LGCQC1011, and measurements carried out on the re-constituted matter did not detect peanut / peanut protein at a level of 1 mg/kg or above. Indicative values (Peanut protein) LGCQC1011 (Negative control).....<1 mg/kg LGCQC1012 (Positive control)10 mg/kg	2 x 5 g												
BCR-657	Sugar (glucose) - Carbon-13 isotope ratio Certified value <table> <tr> <th>Parameter</th><th>Value</th><th>Uncertainty</th></tr> <tr> <td>d13 CVPDB by IRMS</td><td>1.076 ‰</td><td>0.004‰</td></tr> </table>	Parameter	Value	Uncertainty	d13 CVPDB by IRMS	1.076 ‰	0.004‰	1 g						
Parameter	Value	Uncertainty												
d13 CVPDB by IRMS	1.076 ‰	0.004‰												
ERM-AE672	Glycine - Absolute carbon isotope ratio Certified values for Glycine-Absolute carbon isotope ratio n(13C)/n(12C) 0.010648 δ13CVPDB-LSVEC -42.12 ‰13C1	500 mg												
LGC7220	Horse meat (100%)	10 g												
LGC7221	Beef (100%)	10 g												
LGC7222	Pork (100%)	10 g												
LGC7223	Sheep meat (100%)	10 g												
LGC7224	Chicken meat (100%)	10 g												
LGC7225	Turkey meat (100%)	10 g												
LGC7240	Horse meat (1%) in beef	3 x 2 g												
LGC7241	Horse meat (10%) in beef	3 x 2 g												
LGC7242	Pork (1%) in beef	3 x 2 g												
LGC7243	Pork (10%) in beef	3 x 2 g												
LGC7244	Chicken (1%) in sheep	3 x 2 g												
LGC7245	Chicken (5%) in sheep	3 x 2 g												
LGC7246	1% Turkey meat in sheep meat	3 x 2 g												
LGC7247	5% Turkey meat in sheep meat	3 x 2 g												
LGC7248	Beef in sheep meat	3 x 2 g												
LGC7249	Beef in sheep meat	3 x 2 g												
BCR-656	Ethanol from wine (96 % vol.) - Isotope ratios Certified values <table> <tr> <th>Parameter</th><th>Value</th><th>Uncertainty</th></tr> <tr> <td>(D/H)I by 2H-NMR</td><td>102.84 ppm</td><td>0.20 ppm</td></tr> <tr> <td>R by ²H-NMR</td><td>2.570</td><td>0.005</td></tr> <tr> <td>d13CVPDB by IRMS</td><td>-2.691‰</td><td>0.007‰</td></tr> </table> ⁽¹⁾ in w/w volume	Parameter	Value	Uncertainty	(D/H)I by 2H-NMR	102.84 ppm	0.20 ppm	R by ² H-NMR	2.570	0.005	d13CVPDB by IRMS	-2.691‰	0.007‰	25 mL
Parameter	Value	Uncertainty												
(D/H)I by 2H-NMR	102.84 ppm	0.20 ppm												
R by ² H-NMR	2.570	0.005												
d13CVPDB by IRMS	-2.691‰	0.007‰												

Food authenticity and speciation

BCR-658	Wine (7% vol) - Oxygen-18 isotope ratio		25 mL
	Certified values		
	Parameter	Value	Uncertainty
	(D/H) _{II} by 2H-NMR.....	132.07 ppm.....	0.30 ppm
	Alcoholic grade t _D	4.61%.....	0.05%(1)
BCR-660	Wine ethanol - Isotope ratios		450 mL
	Certified values		
	Parameter	Value	Uncertainty
	(D/H) _I by ² H-NMR	102.90 ppm.....	0.16 ppm
	(D/H) _{II} by 2H-NMR.....	131.35 ppm	0.23 ppm
	R by ² H-NMR	2.567	0.005
	d13CVPDB by IRMS.....	-2.672%.....	0.009%
	(D/H) _w of water (IRMS)	148.68 ppm.....	0,14 ppm
	Alcoholic grade t _D	11.96%.....	0.06% ⁽¹⁾
	⁽¹⁾ in v/v %		

Code	Product	Unit
LGC7173	Poultry feed - Proximates and elements	45 g
	Assessed values using Statutory Methods*	
	Moisture 12.3 ± 0.3 g/100 g Oil 4.1 ± 0.7 g/100 g	
	Ash..... 6.4 ± 0.6 g/100 g	
	Assessed values using data derived from a variety of methods	
	Moisture 12.0 ± 0.3 g/100 g Ca..... 1.44 ± 0.15 g/100 g	
	K 0.74 ± 0.06 g/100 g	
	Nitrogen 2.56 ± 0.19 g/100 g Chloride..... 0.28 ± 0.06 g/100 g	
	Fe..... 145 ± 31 mg/kg	
	Oil 4.1 ± 0.7 g/100 g Mg 0.16 ± 0.02 g/100 g	
	Mn..... 131 ± 19 mg/kg	
	Ash..... 6.5 ± 0.6 g/100 g P 0.63 ± 0.03 g/100 g	
	Zn..... 91 ± 11 mg/kg	
	Crude fibre..... 4.1 ± 0.7 g/100 g Na..... 0.17 ± 0.05 g/100 g	
BCR-115	Animal feed - Pesticides	30 g
	Compound Certified value mg/kg Uncertainty mg/kg	
	HCB0.0194.....0.0014	
	beta-HCH..... 0.023.....0.003	
	gamma-HCH..... 0.0218.....0.0020	
	Heptachlor0.019.....0.0015	
	gamma-Chlordane.....0.048.....0.005	
	Dieldrin 0.018.....0.003	
	alpha-Endosulfan0.046.....0.004	
	Endrin0.046.....0.006	
	2,4'-DDT0.046.....0.005	
	4,4'-DDE0.047.....0.004	
BCR-375	Compound feed - Aflatoxin B1 (blank)	50 g
	Certified value	
	Aflatoxin B1 <1 µg/kg	
BCR-708	Synthetic dairy feed - Proximates and elements	40 g
	Property Certified value Uncertainty	
	Crude protein..... 240 g/kg..... 12 g/kg	
	Crude oils and fats..... 65 g/kg..... 8 g/kg	
	Crude fibre..... 93 g/kg..... 14 g/kg	
	Crude ash..... 50 g/kg..... 3 g/kg	
	Ca..... 4.8 g/kg..... 0.5 g/kg	
	Cu..... 37 mg/kg..... 4 mg/kg	

Animal feed

	Mg.....	1.47 g/kg.....	0.22 g/kg
	P.....	4.7 g/kg.....	0.4 g/kg
BCR-709	Synthetic feed for growing pigs feed - Proximates and elements		40 g
	Property	Certified value	Uncertainty
	Crude protein.....	199 g/kg	5 g/kg
	Crude oils and fats.....	51 g/kg.....	14 g/kg
	Crude fibre.....	56 g/kg.....	12 g/kg
	Crude ash.....	42 g/kg.....	4 g/kg
	Ca.....	1.05 g/kg.....	0.16 g/kg
	Cu.....	173 mg/kg	25 mg/kg
	Mg.....	1.89 g/kg.....	0.30 g/kg
	P.....	5.4 g/kg.....	0.7 g/kg
ERM-BE375	Compound feedingstuff - Aflatoxins (very low level)		2 x 75 g
	ERM-BE376 is a compound feeding stuff mixed from contaminated copra, wheat, barley, soya, maize and a mineral / vitamin premix.		
	Certified values		
	Aflatoxin B1	2.6 ± 0.4 µg/kg	Aflatoxin G10.4 ± 0.1 µg/kg
	Aflatoxin B2	0.20 ± 0.04 µg/kg	Aflatoxin G2< 0.2 µg/kg
ERM-BE376	COMPOUND FEEDINGSTUFF (high level)		2 x 75 g
	ERM-BE376 is a compound feeding stuff mixed from contaminated copra, wheat, barley, soya, maize and a mineral / vitamin premix.		
	Certified values		
	Aflatoxin B1	12.9 ± 1.8 µg/kg	Aflatoxin B20.68 ± 0.10 µg/kg
	Aflatoxin G1	5.2 ± 0.8 µg/kg	

Food supplements

Code	Product	Unit
NIST-3280	Multivitamin/Multielement tablets A unit of NIST-3280 consists of five bottles, each containing 30 tablets. Each tablet weighs approximately 1.5 g. Certified Concentration Values for Vitamins and Carotenoids α-Tocopherol 21.4 $\pm$ 3.5 mg/g Folic acid 394 $\pm$ 22 μg/g Ascorbic acid 42.2 $\pm$ 3.7 mg/g Cyanocobalamin 4.8 $\pm$ 1.0 μg/g Thiamine hydrochloride 1.06 $\pm$ 0.12 mg/g Biotin 23.4 $\pm$ 3.2 μg/g Riboflavin 1.32 $\pm$ 0.17 mg/g Ergocalciferol 9.13 $\pm$ 0.71 μg/g Niacinamide 10 $\pm$ 0.23 mg/g Phylloquinone 22.8 $\pm$ 2.2 μg/g Pantothenic acid 7.30 $\pm$ 0.96 mg/g Trans-β-carotene 420 $\pm$ 100 μg/g Pyridoxine hydrochloride 1.81 $\pm$ 0.17 mg/g Total β-carotene..... 514 $\pm$ 87 μg/g Certified Concentration Values for Selected Elements B..... 0.141 $\pm$ 0.007 mg/g Mg 67.8 $\pm$ 4.0 mg/g Cd 80.15 $\pm$ 0.86 μg/g Ca 110.7 $\pm$ 5.3 mg/g Mn 1.44 $\pm$ 0.11 mg/g Cr 93.7 $\pm$ 2.7 μg/g Cl..... 53.0 $\pm$ 2.3 mg/g Mo 0.0707 $\pm$ 0.0045 mg/g Pb..... 0.2727 $\pm$ 0.0024 μg/g Cr 0.0937 $\pm$ 0.0027 mg/g P 75.7 $\pm$ 3.2 mg/g Mo 70.7 $\pm$ 4.5 μg/g K 53.1 $\pm$ 7.0 mg/g Cu 1.40 $\pm$ 0.17 mg/g Ni..... 8.43 $\pm$ 0.30 μg/g I 0.1327 $\pm$ 0.0066 mg/g Zn 10.15 $\pm$ 0.81 mg/g Se..... 17.42 $\pm$ 0.45 μg/g Fe..... 12.35 $\pm$ 0.91 mg/g As 0.132 $\pm$ 0.044 μg/g Indicative values for elements, vitamins and carotenoids	150 tablets
NIST-3247	Ginkgo biloba extract - Flavonoids, terpene , actones, elements Standard Reference Material NIST-3247 is intended primarily for use in validating analytical methods for the determination of flavonoids, terpene lactones, and toxic elements in Ginkgo biloba extracts and similar matrices. Certified values Quercetin 45.1 $\pm$ 4.6 mg/g Ginkgolide 12.4 $\pm$ 1.4 mg/g Kaempferol 40.8 $\pm$ 3.0 mg/g Ginkgolide 3.9 $\pm$ 1.5 mg/g Isorhamnetin 10.8 $\pm$ 1.3 mg/g Bilobalide 28.5 $\pm$ 2.1 mg/g Total Aglycones 96.8 $\pm$ 8.3 mg/g Total Terpene Lactones..... 62.4 $\pm$ 5.7 mg/g Ginkgolide..... 11.6 $\pm$ 1.7 mg/g Pb..... 4.273 $\pm$ 0.031 ng/g	5 x 1 g

Food supplements

	Ginkgolide..... 5.92 ± 0.45 mg/g																											
	Indicative values for As and Cd																											
NIST-3248	Ginkgo-containing tablets - Flavonoids aglycones, terpene lactones 5 x 1 g Standard Reference Material NIST-3248 is intended primarily for use in validating analytical methods for the determination of flavonoids, terpene lactones, and toxic elements in ginkgo-containing tablets and similar matrices. Certified values Quercetin 7.56 ± 0.40 Ginkgolide B..... 1.12 ± 0.20 Kaempferol 7.19 ± 0.70 Ginkgolide C 2.36 ± 0.42 Isorhamnetin 1.90 ± 0.22 Total Terpene Lactones..... 11.8 ± 1.4 Total Aglycones 16.6 ± 1.2 Pb.....0.7753 ± 0.0089 µg/g Indicative values for detected terpene, lactones As, Cd and Hg																											
NIST-3249	Ginkgo dietary supplement suite - Flavonoids, terpene , actones, elements 2 each Standard Reference Material NIST-3249 consists of two bottles each of three ginkgo-related SRMs®: NIST-3246 Ginkgo biloba (Leaves), NIST-3247 Ginkgo biloba extract, and NIST-3248 Ginkgo-containing tablets. These SRMs are intended primarily for use in validating analytical methods for the determination of flavonoids, terpene lactones, and toxic elements in Ginkgo-containing matrices. These SRMs® can also be used for quality assurance when assigning values to in-house control materials.																											
NIST-3251	Serenoa repens extract - Phytosterols, fatty acids, β-carotene, and gamma-tocopherol 5 x 1 mL This Standard Reference Material (SRM) is intended primarily for use in validating analytical methods for the determination of phytosterols, fatty acids, β-carotene, and γ-tocopherol in extracts of Serenoa repens (saw palmetto) and similar matrices. This SRM can also be used for quality assurance when assigning values to in- house control materials. A unit of NIST-3251 consists of five ampoules, each containing approximately 1 mL of saw palmetto extract. Certified concentration values for selected phytosterols in NIST-3251 Phytosterols <table><tr><td></td><td>Mass Fraction (mg/g)</td></tr><tr><td>Campesterol.....</td><td>0.533 ± 0.031</td></tr><tr><td>β-Sitosterol.....</td><td>1.666 ± 0.064</td></tr><tr><td>Stigmasterol.....</td><td>0.247 ± 0.040</td></tr></table> Certified concentration values for selected fatty acids (as triglycerides) in NIST-3251 Fatty acids <table><tr><td></td><td>Mass Fraction (%)</td></tr><tr><td>Octanoic acid (C8:0) (Caprylic acid).....</td><td>2.677 ± 0.032</td></tr><tr><td>Decanoic acid (C10:0) (Capric acid).....</td><td>2.690 ± 0.055</td></tr><tr><td>Dodecanoic acid (C12:0) (Lauric acid).....</td><td>26.51 ± 0.66</td></tr><tr><td>Tridecanoic acid (C13:0).....</td><td>0.069 ± 0.002</td></tr><tr><td>Tetradecanoic acid (C14:0) (Myristicacid).....</td><td>10.68 ± 0.16</td></tr><tr><td>Pentadecanoic acid (C15:0).....</td><td>0.0518 ± 0.0018</td></tr><tr><td>Hexadecanoic acid (C16:0) (Palmitic acid).....</td><td>8.55 ± 0.20</td></tr><tr><td>Heptadecanoic acid (C17:0).....</td><td>0.0640 ± 0.0024</td></tr></table>		Mass Fraction (mg/g)	Campesterol.....	0.533 ± 0.031	β-Sitosterol.....	1.666 ± 0.064	Stigmasterol.....	0.247 ± 0.040		Mass Fraction (%)	Octanoic acid (C8:0) (Caprylic acid).....	2.677 ± 0.032	Decanoic acid (C10:0) (Capric acid).....	2.690 ± 0.055	Dodecanoic acid (C12:0) (Lauric acid).....	26.51 ± 0.66	Tridecanoic acid (C13:0).....	0.069 ± 0.002	Tetradecanoic acid (C14:0) (Myristicacid).....	10.68 ± 0.16	Pentadecanoic acid (C15:0).....	0.0518 ± 0.0018	Hexadecanoic acid (C16:0) (Palmitic acid).....	8.55 ± 0.20	Heptadecanoic acid (C17:0).....	0.0640 ± 0.0024	
	Mass Fraction (mg/g)																											
Campesterol.....	0.533 ± 0.031																											
β-Sitosterol.....	1.666 ± 0.064																											
Stigmasterol.....	0.247 ± 0.040																											
	Mass Fraction (%)																											
Octanoic acid (C8:0) (Caprylic acid).....	2.677 ± 0.032																											
Decanoic acid (C10:0) (Capric acid).....	2.690 ± 0.055																											
Dodecanoic acid (C12:0) (Lauric acid).....	26.51 ± 0.66																											
Tridecanoic acid (C13:0).....	0.069 ± 0.002																											
Tetradecanoic acid (C14:0) (Myristicacid).....	10.68 ± 0.16																											
Pentadecanoic acid (C15:0).....	0.0518 ± 0.0018																											
Hexadecanoic acid (C16:0) (Palmitic acid).....	8.55 ± 0.20																											
Heptadecanoic acid (C17:0).....	0.0640 ± 0.0024																											

	Octadecanoic acid (C18:0) (Stearic acid)..... 1.757 ± 0.021 (Z)-9-Octadecenoic acid (C18:1 n-9) (Oleic acid)..... 34.73 ± 0.43 (Z)-11-Octadecenoic acid (C18:1 n-7) (Vaccenic acid)..... 0.834 ± 0.020 (Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6) (Linoleic acid)..... 6.018 ± 0.093 (Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3) (Linolenic acid) 1.248 ± 0.027 Eicosanoic acid (C20:0) (Arachidic acid)..... 0.0936 ± 0.0033 (Z)-11-Eicosenoic acid (C20:1 n-9) (Gondoic acid)..... 0.1939 ± 0.0031 Docosanoic acid (C22:0) (Behenic acid)..... 0.0646 ± 0.0016 Tetracosanoic acid (C24:0)..... 0.0929 ± 0.0028 Certified concentration values for total β-carotene and γ-tocopherol in NIST-3251 Mass Fraction (μg/g) Total β-carotene..... 46.8 ± 4.6 γ-Tocopherol..... 280 ± 13 Reference concentration value for cycloartenol, selected fatty acids (as triglycerides), selected free fatty acids, for β-carotene isomers and δ-tocopherol, brassicasterol and lupeol	
NIST-3256	Green tea-containing solid oral dosage form - Catechins, xanthines and toxic elements 5 x 2.5 g This Standard Reference Material (SRM[®]) is intended primarily for use in validating analytical methods for the determination of catechins, xanthines, and toxic elements in solid oral dosage forms containing green tea and in similar matrices. NIST-3256 can also be used for quality assurance when assigning values to in-house control materials. A unit of NIST-3256 consists of five packets, each containing approximately 2.5 g of powdered material. Certified Mass Fraction Values for Selected Catechins, Gallic Acid, and Xanthines in NIST-3256 Mass Fraction (mg/g, dry-mass basis) (+)-Catechin..... 2.63 ± 0.18 (-)-Gallocatechin 7.55 ± 0.28 (-)-Epicatechin..... 12.0 ± 2.6 Gallic acid 13.10 ± 0.49 (-)-Epicatechin gallate..... 17.1 ± 2.6 Caffeine..... 70.0 ± 2.6 (-)-Epigallocatechin..... 30.7 ± 5.7 Theobromine..... 1.04 ± 0.15 (-)-Epigallocatechin gallate 71.1 ± 6.6 Certified Mass Fraction Values for Toxic Elements in NIST-3256 Mass Fraction (mg/kg, dry-mass basis) Arsenic (As) 0.269 ± 0.019 Lead (Pb)..... 0.316 ± 0.030 Cadmium (Cd) 0.025 ± 0.002 Mercury (Hg) 0.014 ± 0.002 Indicative values for (-)-Gallocatechin gallate, L-Theanine and Theophylline.	

Drinks and alcoholic beverages

Code	Product	Unit												
LGC5004	Lager shandy - Alcohol This certified reference material for lager shandy is supplied in 150mL units and sealed in aluminium cans. Certified value Alcohol 1.02 mL/100 mL (at 20°C)	330 mL												
LGC5100	Whisky - Congeners Whisky sourced from a commercial source is available in 10mL unit in amber glass vials using sealed septa with crimped caps. Certified values Methanol 8.2 g/100 L 2-Methylbutan-1-ol..... 19.6 g/100 L Propan-1-ol 67.4 g/100 L 3-Methylbutan-1-ol..... 51.4 g/100 L 2-Methylpropan-1-ol 64.9 g/100 L 2+3-Methylbutan-1-ol..... 70.1g/100 L Indicative values for acetaldehyde, butan-1-ol, furfural, ethyl acetate	10 mL												
LGC7140	Soft drink - Colours Known weights of three food colours were added to a diluted solution of commercial soft drink concentrate. Certified values Ponceau 4R (E124).....18.7 mg/L Tartrazine (E102).....29.9 mg/L Sunset yellow (E110).....19.6 mg/L	60 mL												
BCR-651	Beer - Alcohol (low level) Certified value Ethanol 0.505 % (v/v)	10 mL												
BCR-652	Beer - Alcohol (very low level) Certified value Ethanol 0.051 % (v/v)	10 mL												
BCR-653	Wine - Alcohol (low level) Certified value Ethanol 0.539 % (v/v)	10 mL												
BCR-656	Ethanol from wine (96 % vol.) - Isotope ratios Certified values <table> <thead> <tr> <th>Parameter</th><th>Value</th><th>Uncertainty</th></tr> </thead> <tbody> <tr> <td>(D/H)I by 2H-NMR</td><td>102.84 ppm.....</td><td>0.20 ppm</td></tr> <tr> <td>R by 2H-NMR</td><td>2.570.....</td><td>0.005</td></tr> <tr> <td>d13CVPDB by IRMS</td><td>-2.691%.....</td><td>0.007%</td></tr> </tbody> </table> ⁽¹⁾ in w/w volume	Parameter	Value	Uncertainty	(D/H)I by 2H-NMR	102.84 ppm.....	0.20 ppm	R by 2H-NMR	2.570.....	0.005	d13CVPDB by IRMS	-2.691%.....	0.007%	25 mL
Parameter	Value	Uncertainty												
(D/H)I by 2H-NMR	102.84 ppm.....	0.20 ppm												
R by 2H-NMR	2.570.....	0.005												
d13CVPDB by IRMS	-2.691%.....	0.007%												
BCR-658	Wine (7% vol) - Oxygen-18 isotope ratio Certified values	25 mL												

Drinks and alcoholic beverages

	Parameter	Value	Uncertainty
	d18 OVSMOW of water from wine by IRMS	- 0.719‰	0.004‰
BCR-660	Wine ethanol - Isotope ratios		450 mL
	Certified values		
	Parameter	Value	Uncertainty
	(D/H)I by 2H-NMR	102.90 ppm	0.16 ppm
	R by 2H-NMR	2.567	0.005
	d13CVPDB by IRMS	-2.672‰	0.009‰
	(D/H) w of water (IRMS)	148.68 ppm	0,14 ppm
	Alcoholic grade tD	11.96‰	0.06%(1)
	⁽¹⁾ in v/v %		
ERM-AC404	Ethanol/water - 5% Ethanol		25 mL
	Certified value		
	Ethanol.....	4.98 mL/100 mL at 20°C	
	Density.....	990.02 kg/m ³ at 20°C	
ERM-AC405	Ethanol/water - 15% Ethanol		50 mL
	Certified value		
	Ethanol.....	14.99 mL/100mL at 20°C	
	Density.....	977.94 kg/m ³ at 20°C	
ERM-AC406	Ethanol/water - 40% Ethanol		25 mL
	Certified value		
	Ethanol	39.98 mL/100 mL at 20°C	
ERM-AC407	Ethanol/water - 70% Ethanol		25 mL
	Certified value		
	Ethanol.....	70.09 mL/100mL at 20°C	
	Density.....	884.27 kg/m ³ at 20°C	
	ABV:alcohol by volume		
ERM-BA001	Wine - Alcohol (5%)		250 mL
	Certified value at 20 °C		
	ABV (alcohol by volume)		
	Alcoholic strength (% ABV)	5.37	
ERM-BA002	Wine - Alcohol (10%)		250 mL
	Certified value at 20 °C		
	ABV (alcohol by volume)		
	Alcoholic strength (% ABV)	10.12	
ERM-BA003	Wine - Alcohol (15%)		250 mL
	Certified value		
	Alcohol	14.14 ± 0.10 % (at 20°C)	

Drinks and alcoholic beverages

ERM-BA005	Lager - 5% ABV Alcohol 5.07 mL/100 mL (at 20°C)	330 mL
ERM-BA006	Brandy - 40% ABV European Reference Material ERM-BA006 is a commercial brandy available in 50mL portions contained in amber glass vials fitted with 20mm bromo-butyl stoppers and crimp caps. Certified values Apparent alcoholic strength 37.83 % alcohol by volume, ABV Actual alcoholic strength 40.12 % alcohol by volume, ABV	50 mL
ERM-BD011	Orange juice This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values: Degrees Brix 1.26 Refractive index1.3348	3 mL
ERM-BD013	Orange juice This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Degrees Brix 22.07 Refractive index1.3673	3 mL
ERM-BD014	Orange juice This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Degrees Brix 55.55 Refractive index1.4320	3 mL
ERM-BD015	Orange juice This certified reference material is intended for use in the development, validation or quality control of analytical methods for the determination of degrees Brix or Refractive Index of sugar solutions and food extracts. Certified values Density.....947.01 kg/m ³ at 20°C Density.....946.86 kg/m ³ at 20°C Apparent density in air of the obscured spirit 950.38 kg/m ³ Degrees Brix.....64.73 Refractive index.....1.4529	3 mL
ERM-BD476	Red wine - Ochratoxin A (OTA) Certified value Ochratoxin A 0.52 ± 0.11 µg/L	50 mL
NIST-3282	Low-calorie cranberry juice cocktail - Organic acids, Trace elements A unit of NIST-3282 consists of five ampoules, each containing approximately 1.2 mL of liquid. Certified mass fraction values for organic acids Citric acid 3.221 ± 0.053 mg/g Quinic acid 2.672 ± 0.048 mg/g	5 x 1.2 mL

Drinks and alcoholic beverages

Malic acid.....	2.133 ± 0.042 mg/g
Certified mass fraction values for elements	
Calcium.....	26.3 ± 1.6 mg/kg
Manganese	0.493 ± 0.016 mg/kg
Copper	0.23 ± 0.06 mg/kg
Potassium	247 ± 12 mg/kg
Magnesium	12.97 ± 0.84 mg/kg
Sodium.....	201 ± 20 mg/kg
Indicative values for organic acids, anions, trace elements and sugars	

Processed food

Code	Product	Unit
LGC7016	Chocolate confectionery	15 g
	Assessed values g/100g Uncertainty g/100g	
	Lactose 7.06.....0.96	
	Sucrose..... 46.5.....2.3	
	Total fat..... 29.64.....0.34	
	Butyric acid in fat0.677.....0.071	
	Nitrogen1.274.....0.024	
LGC7103	Sweet digestive biscuit - Proximates and elements	48 g
	Assessed values	
	Moisture 2.88 g/100g Sucrose 13.89 g/100 g	
	Mg254 mg/kg	
	Nitrogen1.073 g/100 g Chloride 0.302 g/100 g	
	P.....900 mg/kg	
	Total fat.....21.17 g/100 g Na.....5010 mg/kg	
	Mn5.49 mg/kg	
	Indicative values for Glucose, Fructose, Starch, Ca, Cu and Fe	
LGC7107	Madeira cake - Proximates	160 g
	Lemon Madeira cakes were prepared by a UK food company. Each cake, weighing approx. 160 g, was sealed in a can.	
	Assessed values	
	Moisture 25.9 g/100 g Total fat 13.4 g/100 g	
	Sucrose..... 28.1 g/100 g	
	Nitrogen 0.66 g/100 g Ash 1.76 g/100 g	
	Lactose 0.9 g/100 g	
	Indicative value for starch content	
BCR-122	Margarine - Vitamins	200 g
	Certified values	
	D3 (cholecalciferol).....0.125 mg/kg	
	E (tocopherol).....241 mg/kg	
BCR-191	Brown bread - Trace elements	40 g
	Certified values	
	Cd 28.4 µg/kg Fe40.7 mg/kg	
	Pb..... 187 µg/kg	

Processed food

	Cu 2.63 mg/kg Mn20.3 mg/kg Zn..... 19.5 mg/kg Indicative values for Ca, Cl, Hg, K, Mg, Na, Ni, P, Se	
BCR-262R	Defatted peanut meal (blank) - Aflatoxin B1 Certified value Aflatoxin B1 <3 µg/kg	100 g
BCR-263R	Defatted peanut meal - Aflatoxin B1, B2 and G1 Certified values Aflatoxin B1..... 17.1 ± 2.4 µg/kg Aflatoxin B2 3.0 ± 0.4 µg/kg Aflatoxin B3..... 3.0 ± 0.5 µg/kg	100 g
BCR-264	Defatted peanut meal (high level) - Aflatoxin B1 Certified value Aflatoxin B1 206 µg/kg	150 g
BCR-385R	Peanut butter - Aflatoxins (low level) Certified values Aflatoxin B1..... 1.77 ± 0.30 µg/kg Aflatoxin G2 0.30 ± 0.12 µg/kg Aflatoxin B2..... 0.48 ± 0.08 µg/kg Sum of Aflatoxin B1, B2, G1, G2 3.5 ± 0.5 µg/kg Aflatoxin G1 0.90 ± 0.4 µg/kg	100 g
BCR-401R	Peanut butter (blank) - Aflatoxins Certified values Aflatoxin B1..... <0.2 µg/kg Aflatoxin G1..... <0.2 µg/kg Aflatoxin B2..... <0.2 µg/kg Aflatoxin G2..... <0.2 µg/kg	100 g
BCR-644	Artificial foodstuff - Free sugars and starch/glucose Sugar Certified value Uncertainty Mass fraction on dry mass basis (g/100 g) (g/100 g) Fructose..... 16.2.....1.1 Sucrose 10.81.....0.25 Lactose 15.85.....0.29 Starch/glucose..... 35.1.....1.2	50 g
BCR-645	Artificial foodstuff - Free sugars and starch/glucose Sugar Certified value Uncertainty Mass fraction on dry mass basis (g/100 g) (g/100 g) Sucrose 26.2.....0.8 Lactose 27.8.....0.6 Starch/glucose..... 25.2.....0.9	50 g

Processed food

ERM-BC084	Tomato paste - Contaminant metals	50 g
	Certified values	
	Cd 0.112 mg/kg	Pb0.316 mg/kg
	Sn 225 mg/kg	
ERM-BD272	Crispbread - Acrylamide	68 g
	Certified value	
	Acrylamide 0.98 ± 0.09 mg/kg	
ERM-BD272-274	Crispbread - Acrylamide; Rusk - Acrylamide	set
	Set of ERM-BD272 and ERM-BD274	
ERM-BD273	Toasted bread - Acrylamide	vial
	The matrix material ERM-BD273, consists of 30 g of toasted bread powder of particle size smaller than 500 µm, stored in amber glass bottles under inert atmosphere and stored at a temperature of - 20 °C.	
	Certified value	
	Acrylamide 425 ng/g	
ERM-BD274	Rusk - Acrylamide	48 g
	Certified value	
	Acrylamide 47 ± 7 µg/kg	
ERM-BD518	Bran breakfast cereal - Dietary fibre	25 g
	Certified using five different methods of dietary fibre analysis	
	Certified values	
	AOAC 1990 30.2 g/100 g	AOAC 1992 MES-TRIS..... 30.5 g/100 g
	Englyst (GC) 24.1 g/100 g	Englyst (colorimetry) 25.0 g/100 g
	Uppsala 27.6 g/100 g	
IRMM-801	Cocoa butter - Triglyceride (TG)	Amp.
	Certified values	
	Triglyceride	Relative mass fraction
		g TG/100 g total TG
		Uncertainty
		g TG/100 g total TG
	1,3-Dipalmitoyl-2-oleyl-glycero..... 18.14.....	0.26
	1-Palmitoyl-2-oleoyl-3-stearoyl-glycerol 44.68.....	0.30
	1,2-Dioleoyl-3-palmitoyl-glycerol 2.26.....	0.16
	1,3-Distearoyl-2-oleoyl-glycerol.....31.63.....	0.29
	1,2-Dioleoyl-3-stearoyl-glycerol.....3.29.....	0.17
NIST-1548a	Typical diet - Trace elements	set (2)
	A unit of NIST-1548a consists of two bottles, each containing approximately 6.5 g of the freeze-dried homogenate of mixed diet foods.	

Processed food

Certified values Al..... 72.4 mg/kg Cu.....2.32 mg/kg Ni 0.369 mg/kg Fe35.3 mg/kg As..... 0.20 mg/kg I0.759 mg/kg P 3486 mg/kg Mg580 mg/kg Ca 1967 mg/kg Mn5.75 mg/kg S 1928 mg/kg Na.....8132 mg/kg Cd 0.035 mg/kg Se 0.245 mg/kg Cl 12078 mg/kg Sn 17.2 mg/kg Cs 0.0098 mg/kg Zn..... 24.6 mg/kg Indicative values for Ash, carbohydrate, fat, N, protein, dietary fibre, calories, B, Ba, Br, Co, Hg, Mo, Sb, Sc, Si, Sr, Ti		
NIST-2383A	Baby food composite - Carotenoids and vitamins 4 x 70 g Certified mass fractions for selected water-soluble vitamins Free Thiamine chloride hydrochloride 0.976 ± 0.014 mg/k Riboflavin..... 0.56 ± 0.15 mg/kg Niacin..... 1.79 ± 0.04 mg/kg Niacinamide..... 3.59 ± 0.06 mg/kg Free Vitamin B (as Niacinamide)..... 5.36 ± 0.10 mg/kg Pantothenic acid..... 1.64 ± 0.02 mg/kg Pyridoxine hydrochloride..... 0.063 ± 0.002 mg/kg Pyridoxamine dihydrochloride..... 0.228 ± 0.003 mg/kg Free Vitamin ^B6..... 0.330 ± 0.004 mg/kg Certified mass fraction values for selected elements Barium..... 0.278 ± 0.020 mg/kg Calcium..... 342.6 ± 5.0 mg/kg Cobalt..... 0.048 ± 0.005 mg/kg Copper..... 0.758 ± 0.082 mg/kg Iron..... 4.42 ± 0.51 mg/kg Magnesium..... 212.2 ± 0.51 mg/kg Manganese..... 0.963 ± 0.064 mg/kg Phosphorus..... 453 ± 11 mg/kg Potassium..... 2910 ± 220 mg/kg Sodium..... 195 ± 29 mg/kg Strontium..... 4.445± 0.047 mg/kg Zinc 2.22 ± 0.18 mg/kg Reference values for other vitamins, proximates, minerals and trace elements.	

Processed food

NIST-2384	Baking chocolate - Fat, fatty acids	5 x 91 g																																				
Standard Reference Material (SRM[®]) 2384 is intended primarily for use in validating methods for determining proximates, fatty acids, calories, vitamins, elements, catechins, caffeine, theobromine, and acrylamide in baking chocolate and similar matrices. Certified values for fat Fat (Extractable) 51.4 ± 1.1 % Fat (Sum of fatty acids).....50.3 ± 1.1 % Certified values for selected fatty acids																																						
		<table> <tr> <th></th><th>Mass fraction as the Triglyceride</th><th>Mass fraction as the Fatty acid</th></tr> <tr> <td>Tetradecanoic acid (C14:0) (Myristic acid)</td><td>0.080 ± 0.005%</td><td>0.076 ± 0.005%</td></tr> <tr> <td>Hexadecanoic acid (C16:0) (Palmitic acid)</td><td>13.06 ± 0.27%</td><td>12.44 ± 0.26%</td></tr> <tr> <td>(Z)-9-Hexadecenoic acid (C16:1) (Palmitoleic acid)</td><td>0.133 ± 0.007%</td><td>0.127 ± 0.007</td></tr> <tr> <td>Octadecanoic acid (C18:0) (Stearic acid)</td><td>18.01 ± 0.40%</td><td>17.24 ± 0.38%</td></tr> <tr> <td>(Z)-9-Octadecenoic acid (C18:1) (Oleic acid)</td><td>16.44 ± 0.36%</td><td>15.73 ± 0.35%</td></tr> <tr> <td>(Z)-11-Octadecenoic acid (C18:1) (Vaccenic acid)</td><td>0.180 ± 0.018%</td><td>0.172 ± 0.017%</td></tr> <tr> <td>(Z,Z)-9,12-Octadecadienoic acid (C18:2) (Linoleic acid)</td><td>1.524 ± 0.048%</td><td>1.458 ± 0.046%</td></tr> <tr> <td>(Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3) (Linolenic acid)</td><td>0.097 ± 0.006</td><td>0.093 ± 0.006</td></tr> <tr> <td>Eicosanoic acid (C20:0) (Arachidic acid)</td><td>0.521 ± 0.013%</td><td>0.501 ± 0.012%</td></tr> <tr> <td>Docosanoic acid (C22:0) (Behenic acid)</td><td>0.091 ± 0.006%</td><td>0.088 ± 0.006%</td></tr> <tr> <td>Tetracosanoic acid (C24:0) (Lignoceric acid)</td><td>0.050 ± 0.002%</td><td>0.050 ± 0.002%</td></tr> </table>		Mass fraction as the Triglyceride	Mass fraction as the Fatty acid	Tetradecanoic acid (C14:0) (Myristic acid)	0.080 ± 0.005%	0.076 ± 0.005%	Hexadecanoic acid (C16:0) (Palmitic acid)	13.06 ± 0.27%	12.44 ± 0.26%	(Z)-9-Hexadecenoic acid (C16:1) (Palmitoleic acid)	0.133 ± 0.007%	0.127 ± 0.007	Octadecanoic acid (C18:0) (Stearic acid)	18.01 ± 0.40%	17.24 ± 0.38%	(Z)-9-Octadecenoic acid (C18:1) (Oleic acid)	16.44 ± 0.36%	15.73 ± 0.35%	(Z)-11-Octadecenoic acid (C18:1) (Vaccenic acid)	0.180 ± 0.018%	0.172 ± 0.017%	(Z,Z)-9,12-Octadecadienoic acid (C18:2) (Linoleic acid)	1.524 ± 0.048%	1.458 ± 0.046%	(Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3) (Linolenic acid)	0.097 ± 0.006	0.093 ± 0.006	Eicosanoic acid (C20:0) (Arachidic acid)	0.521 ± 0.013%	0.501 ± 0.012%	Docosanoic acid (C22:0) (Behenic acid)	0.091 ± 0.006%	0.088 ± 0.006%	Tetracosanoic acid (C24:0) (Lignoceric acid)	0.050 ± 0.002%	0.050 ± 0.002%
	Mass fraction as the Triglyceride	Mass fraction as the Fatty acid																																				
Tetradecanoic acid (C14:0) (Myristic acid)	0.080 ± 0.005%	0.076 ± 0.005%																																				
Hexadecanoic acid (C16:0) (Palmitic acid)	13.06 ± 0.27%	12.44 ± 0.26%																																				
(Z)-9-Hexadecenoic acid (C16:1) (Palmitoleic acid)	0.133 ± 0.007%	0.127 ± 0.007																																				
Octadecanoic acid (C18:0) (Stearic acid)	18.01 ± 0.40%	17.24 ± 0.38%																																				
(Z)-9-Octadecenoic acid (C18:1) (Oleic acid)	16.44 ± 0.36%	15.73 ± 0.35%																																				
(Z)-11-Octadecenoic acid (C18:1) (Vaccenic acid)	0.180 ± 0.018%	0.172 ± 0.017%																																				
(Z,Z)-9,12-Octadecadienoic acid (C18:2) (Linoleic acid)	1.524 ± 0.048%	1.458 ± 0.046%																																				
(Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3) (Linolenic acid)	0.097 ± 0.006	0.093 ± 0.006																																				
Eicosanoic acid (C20:0) (Arachidic acid)	0.521 ± 0.013%	0.501 ± 0.012%																																				
Docosanoic acid (C22:0) (Behenic acid)	0.091 ± 0.006%	0.088 ± 0.006%																																				
Tetracosanoic acid (C24:0) (Lignoceric acid)	0.050 ± 0.002%	0.050 ± 0.002%																																				
Certified values for selected additional analytes Caffeine1060 ± 50 (+)-Catechin 245 ± 51 mg/kg Theobromine 11600 ± 1 100 mg/kg (–)-Epicatechin..... 1220 ± 240 mg/kg Calcium 840 ± 74 mg/kg Catechin monomers....1490 ± 220 mg/kg Iron..... 132 ± 11 mg/kg Reference values for proximates and caloric content, fatty acids, trace elements, vitamins and other analytes.																																						
NIST-2387	Peanut butter - Fat, fatty acids, trace elements and tocopherols	3 x 170 g																																				
This Standard Reference Material[®] (SRM[®]) is intended primarily for use in validating methods for determining proximates, fatty acids, calories, vitamins, elements, amino acids, and aflatoxins in peanut butter and similar matrices. Certified concentrations for fat and selected fatty acids Mass fraction (%) Fat (extractable).....51.6 ± 1.4 Fat (sum of fatty acids).....49.8 ± 1.9 Saturated fat.....10.4 ± 0.2 Monounsaturated fat24.4 ± 0.9 Polyunsaturated fat.....13.2 ± 0.4																																						
		<table> <tr> <th></th><th>Mass fraction (%)</th><th>Mass fraction (%)</th></tr> </table>		Mass fraction (%)	Mass fraction (%)																																	
	Mass fraction (%)	Mass fraction (%)																																				

	(as the triglyceride)	(as the fatty acid)
Tetradecanoic acid (C14:0) (Myristic acid)	0.025 ± 0.002	0.024 ± 0.002
Hexadecanoic acid (C16:0) (Palmitic acid)	5.18 ± 0.15	4.94 ± 0.15
(Z)-9-Hexadecenoic acid (C16:1 n-7) (Palmitoleic acid)	0.046 ± 0.011	0.044 ± 0.010
Octadecanoic acid (C18:0) (Stearic acid)	2.23 ± 0.08	2.13 ± 0.08
(Z)-9-Octadecenoic acid (C18:1 n-9) (Oleic acid)	24.43 ± 0.94	23.38 ± 0.90
(Z)-11-Octadecenoic acid (C18:1 n-7) (Vaccenic acid)	0.266 ± 0.017	0.255 ± 0.016
(Z,Z)-9,12-Octadecadienoic acid (C18:2 n-6) (Linoleic acid)	13.75 ± 0.43	13.15 ± 0.41
(Z,Z,Z)-9,12,15-Octadecatrienoic acid (C18:3 n-3) (Linolenic acid)	0.031 ± 0.001	0.030 ± 0.001
Eicosanoic acid (C20:0) (Arachidic acid)	0.739 ± 0.030	0.710 ± 0.029
(Z)-11-Eicosenoic acid (C20:1 n-9) (Gondoic acid)	0.669 ± 0.032	0.643 ± 0.031
Docosanoic acid (C22:0) (Behenic acid)	1.88 ± 0.08	1.81 ± 0.08
Tetracosanoic acid (C24:0)	0.808 ± 0.045	0.781 ± 0.044
Certified concentration values for elements and tocopherol		
Mass fraction (mg/kg)		
Ca 411 ± 18	K..... 6070 ± 200	
Cu 4.93 ± 0.15	Na 4890 ± 140	
fe..... 16.4 ± 0.8	Zn 26.3 ± 1.1	
Mg..... 1680 ± 70	δ -Tocopherol..... 10 ± 3	
Mn..... 16.0 ± 0.6	γ - + β -Tocopherol 100 ± 19	
P 3378 ± 92	α -Tocopherol..... 108 ± 11	
Reference values for proximates, caloric content, fatty acids, amino acids, water-soluble vitamins, aflatoxins and acrylamide		
NIST-3233	Fortified Breakfast Cereal	60 g
This Standard Reference Material (SRM) is intended primarily for validation of methods for determining proximates, sugars, dietary fiber, vitamins, elements, and amino acids in fortified breakfast cereals and similar materials. This SRM can also be used for quality assurance when assigning values to in-house reference materials. The SRM is a wheat-based fortified breakfast cereal prepared by a commercial manufacturer. A unit of SRM 3233 consists of one bottle containing approximately 60 g of material and sealed inside an aluminized pouch.		
Certified Mass Fraction Values (Dry-Mass Basis) for Selected Elements		
Mass Fraction (mg/kg)		
Barium.....	2.766 ± 0.033	
Cadmium.....	0.0819 ± 0.0020	
Calcium.....	36910 ± 920	
Copper.....	3.97 ± 0.28	
Iron.....	766 ± 36	

Processed food

	Magnesium.....	1093 ± 37	
	Manganese.....	33.1 ± 1.1	
	Phosphorus.....	2592 ± 68	
	Potassium.....	3060 ± 140	
	Sodium.....	6830 ± 120	
	Strontium.....	8.34 ± 0.17	
	Zinc.....	628 ± 16	
	Certified Mass Fraction Values (Dry-Mass Basis) for Selected Vitamins		
	Mass Fraction (mg/kg)		
	Thiamine (Vitamin B1).....	60.2 ± 9.4	
	Riboflavin (Vitamin B2).....	76 ± 2	
	Niacinamide.....	799 ± 27	
	Total Vitamin B3 as Niacinamide...	822 ± 39	
	Pantothenic Acid.....	540 ± 40	
	Pyridoxine.....	78.0 ± 4.7	
	Total Vitamin B6 as Pyridoxine...	81.9 ± 9.0	
	Folic Acid.....	15.1 ± 1.2	
	Total α-Tocopherol (Vitamin E).....	1350 ± 220	
	Reference values for cobalt, molybdenum, vanadium, ascorbic acid, niacin, pyridoxal, Cyanocobalamin (Vitamin B12), Proximates, Sugars, and Calories.		
NRCSELM-1	Selenium enriched yeast		8 g
	Certified values		
	Total selenium	2059 ± 64 mg/kg	Methionine 5758 ± 277 mg/kg
	Selenomethionine...	3431 ± 157 mg/kg	

Compound group	Example part number	Part description	Unit
A1 - Stilbenes	DRE-C12607000	Diethylstilbestrol	100mg
A1 - Stilbenes	DRE-C12598000	Dienestrol	25mg
A1 - Stilbenes	DRE-C14202800	Hexestrol	100mg
A2 -Thyreostats	DRE-C17561500	2-Thiouracil	250mg
A2 -Thyreostats	DRE-C15144300	6-Methyl-2-thiouracil	100mg
A2 -Thyreostats	DRE-C16530500	6-Propyl-2-thiouracil	250mg
A2 -Thyreostats	LGCFOR0889.00	Thiamazole	10mg
A3 - Steroids	LGCFOR1199.00	17a, 19-Nortestosterone (Norethandrolone)	10mg
A3 - Steroids	DRE-C15652000	19-Nortestosterone	100mg
A3 - Steroids	LGCFOR0323.07	Androsta-1,4-diene-3,17-dione (ADD)	10mg
A3 - Steroids	DRE-C10255030	4-Androstene-3,17-dione (AED)	100mg
A3 - Steroids	DRE-C10144000	Altrenogest	100mg
A3 - Steroids	DRE-C10662000	Boldenone	10mg
A3 - Steroids	DRE-C11418500	Chloromadinon 17-acetate	100mg
A3 - Steroids	TRC-D230665-5MG	Delmadinone acetate	5mg
A3 - Steroids	DRE-C13283000	Ethisterone	100mg
A3 - Steroids	DRE-C13245100	17a-Ethinylestradiol	250mg
A3 - Steroids	LGCFOR0959.00	Fluoxymesterone	10mg
A3 - Steroids	DRE-C14852015	Medroxyprogesterone-17-acetate	100mg
A3 - Steroids	DRE-C16903000	Salbutamol free base	100mg
A3 - Steroids	DRE-C14861700	Melengestrol acetate	100mg
A3 - Steroids	DRE-C15144000	17-alpha-Methyltestosterone	100mg
A3 - Steroids	LGCFOR1199.00	Norethandrolone	10mg
A3 - Steroids	LGCFOR0122.00	Norgestrel	10mg
A3 - Steroids	DRE-C13213100	17-beta-Estradiol	250mg
A3 - Steroids	DRE-C16342000	Progesterone	250mg
A3 - Steroids	DRE-C16974000	Stanozolol	100mg
A3 - Steroids	DRE-C17322500	Testosterone	250mg
A3 - Steroids	DRE-CA17607700	Trenbolone	100mg
A4 - Resorcylic acid lactones	B-MYC1240-1	alpha-Zearalenol 10 µg/mL in Acetonitrile	1ml
A4 - Resorcylic acid lactones	B-MYC1260-1	beta-Zearalenol 10 µg/mL in Acetonitrile	1ml
A4 - Resorcylic acid lactones	B-MYC1220-1	beta-Zearalanol (Taleranol) 10 µg/mL in Acetonitrile	1ml
A4 - Resorcylic acid lactones	B-MYC0600-2	Zearalenone 100 µg/mL in Acetonitrile	1ml
A4 - Resorcylic acid lactones	DRE-C17948000	Zeranol (mixture of isomers)	10mg
A4 – RALs Stable isotopes	B-MYC0610-1.2	Zearalenone (U-13C18) 25 µg/mL in Acetonitrile	1.2ml
A5 – Beta agonists	DRE-C10418500	Bambuterol hydrochloride	10mg
A5 – Beta agonists	DRE-C10683000	Brombuterol hydrochloride	10mg
A5 – Beta agonists	DRE-C11666350	Cimaterol	10mg
A5 – Beta agonists	DRE-C11666400	Cimbuterol	10mg
A5 – Beta agonists	DRE-C11668550	Clenbuterol hydrochloride	100mg
A5 – Beta agonists	CAY-15365-10MG	Clencyclohexerol	10mg

Compound group	Example part number	Part description	Unit
A5 – Beta agonists	FL-32580-10MG	Clenhexerol	10mg
A5 – Beta agonists	DRE-C11668700	Clenpenterol hydrochloride	10mg
A5 – Beta agonists	DRE-C11668740	Clenproperol	10mg
A5 – Beta agonists	LGCFOR3074.00	Fenoterol Hydrobromide	5mg
A5 – Beta agonists	LGCFOR0447.00	Formoterol Fumarate Dihydrate	10mg
A5 – Beta agonists	DRE-C11668565	Clenbuterol-hydroxymethyl	10mg
A5 – Beta agonists	LGCFOR0576.00	Isoxsuprine Hydrochloride	10mg
A5 – Beta agonists	DRE-C14660000	Mabuterol hydrochloride	50mg
A5 – Beta agonists	DRE-C14754000	Mapenterol hydrochloride	5mg
A5 – Beta agonists	DRE-C14947500	Metaproterenol hemisulfate salt	100mg
A5 – Beta agonists	LGCFOR0148.00	Orciprenaline Sulfate	10mg
A5 – Beta agonists	LGCFOR3196.00	Pirbuterol Dihydrochloride	10mg
A5 – Beta agonists	DRE-C16805000	Ractopamine hydrochloride	100mg
A5 – Beta agonists	LGCFOR0800.00	Ritodrine Hydrochloride	10mg
A5 – Beta agonists	DRE-C16903000	Salbutamol free base	100mg
A5 – Beta agonists	LGCFOR0536.00	Salmeterol Xinafoate	10mg
A5 – Beta agonists	DRE-C17295000	Terbutalin sulfate	100mg
A5 – Beta agonists	FL-53541-10MG	Tulobuterol hydrochloride	10mg
A5 – Beta agonists	TRC-Z430000-10MG	Zilpaterol	10mg
A5 – Beta agonists Stable isotopes	DRE-C11666352	Cimaterol D7	10mg
A5 – Beta agonists Stable isotopes	DRE-C11668561	(±)-Clenbuterol D9 (trimethyl D9)	25mg
A5 – Beta agonists Stable isotopes	DRE-C11668742	Clenproperole D7	10mg
A6 – Nitromidazoles	DRE-C12772000	Dimetridazole	250mg
A6 – Nitromidazoles	DRE-C14370720	Ipronidazole-hydroxy	10mg
A6 – Nitromidazoles	DRE-C15201300	Metronidazole-hydroxy	10mg
A6 – Nitromidazoles	DRE-C15201000	Metronidazole	250mg
A6 – Nitromidazoles	DRE-C15746000	Ornidazole	100mg
A6 – Nitromidazoles	DRE-C16815500	Ronidazol	100mg
A6 – Nitromidazoles Stable isotopes	DRE-C12772010	Dimetridazole D3	10mg
A6 – Nitromidazoles Stable isotopes	DRE-C14370701	Ipronidazole D3	10mg
A6 – Nitromidazoles Stable isotopes	DRE-C15201001	Metronidazole D4 (ethylene D4)	10mg
A6 – Nitromidazoles Stable isotopes	DRE-C16815501	Ronidazole D3	10mg
A6 – Nitrofurans	DRE-C10203200	1-Aminohydantoin hydrochloride	100mg
A6 – Nitrofurans	DRE-C10206300	3-Amino-5-morpholinomethyl-2-oxazolidinone (AMTZ)	50mg
A6 – Nitrofurans	DRE-C10209000	3-Amino-2-oxazolidinone AOZ	50mg
A6 – Nitrofurans	DRE-C15523130	Nifursol-desfurfuryliden	100mg

Compound group	Example part number	Part description	Unit
A6 – Nitrofurans	DRE-C13963000	Furaltadone hydrochloride	100mg
A6 – Nitrofurans	DRE-C13970200	Furazolidone	250mg
A6 – Nitrofurans	DRE-C15523100	Nifursol	100mg
A6 – Nitrofurans	DRE-C15570900	Nitrofurantoin	250mg
A6 – Nitrofurans	DRE-C15571000	Nitrofurazone	250mg
A6 – Nitrofurans	DRE-C15654450	2-NP-AHD	10mg
A6 – Nitrofurans	DRE-C15654480	2-NP-AMAZ	10mg
A6 – Nitrofurans	DRE-C15654500	2-NP-AOZ	10mg
A6 – Nitrofurans	DRE-C15654520	2-NP-SCA	10mg
A6 – Nitrofurans	DRE-C16933500	Semicarbazide hydrochloride	100mg
A6 – Nitrofurans Stable isotopes	DRE-XA10203190AL	1-Aminohydantoin (2,4,5-13C3) 100 ng/μL in Acetonitrile	1.1ml
A6 – Nitrofurans Stable isotopes	DRE-C10209010	3-Amino-2-oxazolidinone (AOZ) D4	10mg
A6 – Nitrofurans Stable isotopes	DRE-C10206310	3-Amino-5-morpholinomethyl-2-oxazolidinone D5 (AMAZ D5)	10mg
A6 – Chloramphenicol	DRE-C11120000	Chloramphenicol	250mg
A6 – Chloramphenicol Stable isotope	DRE-C11120100	Chloramphenicol D5 (ring D4, benzyl D)	10mg
A6 – Dapsone	DRE-C11963000	Dapsone	250mg
A6 - Chlorpromazine	DRE-C11575000	Chlorpromazine hydrochloride	250mg
A6 – Chlorpromazine Stable isotope	LGCAMP0420.80-02	Chlorpromazine-D3 0.1 mg/ml in Methanol	1ml

Compound group	Example part number	Part description	Unit
B1 - Antimicrobials	DRE-C10242500	Amoxicillin trihydrate	250mg
B1 - Antimicrobials	DRE-C10243080	Ampicillin trihydrate	100mg
B1 - Antimicrobials	DRE-C10293000	Apramycin sulfate	250mg
B1 - Antimicrobials	DRE-C10418000	Bacitracin	250mg
B1 - Antimicrobials	DRE-C15935000	Penicilline G potassium salt	250mg
B1 - Antimicrobials	DRE-C11064100	Cefazolin sodium salt	100mg
B1 - Antimicrobials	DRE-C11064300	Cefoperazone sodium salt	100mg
B1 - Antimicrobials	DRE-C11064700	Cefquinome sulfate	100mg
B1 - Antimicrobials	DRE-C11065000	Ceftiofur	100mg
B1 - Antimicrobials	DRE-C11065300	Cefuroxime sodium salt	100mg
B1 - Antimicrobials	DRE-C11064000	Cefalexin monohydrate	250mg
B1 - Antimicrobials	DRE-C11509100	Chlorotetracycline hydrochloride	250mg
B1 - Antimicrobials	DRE-C11668500	Ciprofloxacin hydrochloride	100mg
B1 - Antimicrobials	DRE-C11668545	Clavulanic acid potassium salt	100mg
B1 - Antimicrobials	DRE-C11692100	Cloxacillin sodium salt hydrate	250mg
B1 - Antimicrobials	DRE-C11693500	Colistin sulfate	100mg
B1 - Antimicrobials	DRE-C11960500	Danofloxacin mesylate	100mg
B1 - Antimicrobials	DRE-C12128000	Demeclocycline hydrochloride	100mg

Veterinary residues

B1 - Antimicrobials	DRE-C12560500	Dicloxacillin sodium hydrate	100mg
B1 - Antimicrobials	DRE-C12627000	Difloxacin hydrochloride	100mg
B1 - Antimicrobials	DRE-C12635300	Dihydrostreptomycin sesquisulfate	100mg
B1 - Antimicrobials	DRE-C13084280	Doxycycline hyclate	100mg
B1 - Antimicrobials	DRE-C13170000	Enrofloxacin	100mg
B1 - Antimicrobials	DRE-C13665000	Florfenicol	0.25g
B1 - Antimicrobials	DRE-C13718000	Flumequin	250mg
B1 - Antimicrobials	DRE-C14000200	Gentamycin-2,5-sulfate hydrate	250mg
B1 - Antimicrobials	DRE-C14505520	Kanamycin sulfate	100mg
B1 - Antimicrobials	DRE-C14755000	Marbofloxacin	100mg
B1 - Antimicrobials	DRE-C15402500	Nafcillin sodium salt monohydrate	100mg
B1 - Antimicrobials	DRE-C15412000	Nalidixic acid	100mg
B1 - Antimicrobials	DRE-C15500900	Neomycin sulfate	100mg

Compound group	Example part number	Part description	Unit
B1 - Antimicrobials	DRE-C15648000	Norfloxacin	100mg
B1 - Antimicrobials	DRE-C15755100	Oxacillin sodium salt hydrate	100mg
B1 - Antimicrobials	DRE-C15788000	Oxolinic acid	250mg
B2 - Antimicrobials	DRE-C15717000	Ofloxacin	100mg
B1 - Antimicrobials	DRE-C15820000	Oxytetracycline hydrochloride	250mg
B1 - Antimicrobials	DRE-C15893500	Paromomycin sulfate	100mg
B1 - Antimicrobials	DRE-C15935010	Penicilline V potassium salt	100mg
B1 - Antimicrobials	DRE-C16908000	Sarafloxacin hydrochloride	100mg
B1 - Antimicrobials	DRE-C16972700	Spectinomycin dihydrochloride hydrate	250mg
B1 - Antimicrobials	DRE-C16972900	Spiramycin	100mg
B1 - Antimicrobials	DRE-CA16974900	Streptomycin sulfate	250mg
B1 - Antimicrobials	DRE-C16990100	Sulfachloropyridazine	250mg
B1 - Antimicrobials	DRE-C16990500	Sulfadiazin	100mg
B1 - Antimicrobials	DRE-C16990550	Sulfadimethoxine	250mg
B1 - Antimicrobials	DRE-C16990600	Sulfadoxin	100mg
B1 - Antimicrobials	DRE-C16995100	Sulfamerazine	250mg
B1 - Antimicrobials	DRE-C16996500	Sulfamethazine	250mg
B1 - Antimicrobials	DRE-C16998100	Sulfamethoxazole	250mg
B1 - Antimicrobials	DRE-C16998150	Sulfamethoxypyridazine	250mg
B1 - Antimicrobials	DRE-C16998180	Sulfamonomethoxine sodium hydrate	100mg
B1 - Antimicrobials	DRE-C17000000	Sulfanilamide	250mg
B1 - Antimicrobials	DRE-C17000100	Sulfapyridine	250mg
B1 - Antimicrobials	DRE-C16990000	Sulfachinoxalin	250mg
B1 - Antimicrobials	DRE-C17000200	Sulfathiazole	250mg
B1 - Antimicrobials	DRE-C17396150	Tetracycline hydrochloride	250mg

Veterinary residues

B1 - Antimicrobials	DRE-C17457000	Thiamphenicol	100mg
B1 - Antimicrobials	DRE-C17575790	Tiamulin	100mg
B1 - Antimicrobials	DRE-C17582000	Tilmicosin	100mg
B1 - Antimicrobials	DRE-C17875000	Trimethoprim	250mg
B1 - Antimicrobials	DRE-C17895600	Tylosin tartrate	250mg
B1 – Antimicrobials Stable isotopes	DRE-C10024051	Acetylsulfamethoxazole D4	10mg
B1 – Antimicrobials Stable isotopes	DRE-C11668501	Ciprofloxacin D8 hydrochloride	10mg
B1 – Antimicrobials Stable isotopes	DRE-XA12537010AC	Diclofenac D4 acid (phenyl D4) 100 ng/μL in Acetoni- trile - short expiry, for immediate use only	1.1ml
B1 – Antimicrobials Stable isotopes	DRE-C13170100	Enrofloxacin D5 hydrochloride	10mg
B1 – Antimicrobials Stable isotopes	DRE-XA14532110AL	(±)-Ketoprofen D3 (propionic D3 acid) 100 ng/μL in Acetonitrile	1ml
B1 – Antimicrobials Stable isotopes	DRE-C15648010	Norfloxacin D5	10mg
B1 – Antimicrobials Stable isotopes	DRE-C15717010	Ofloxacin D3 hydrochloride	10mg
B1 – Antimicrobials Stable isotopes	DRE-XA16990102AL	Sulfachloropyridazine 13C6	1ml

Compound group	Example part number	Part description	Unit
B1 – Antimicrobials Stable isotopes	DRE-C16990551	Sulfadimethoxine D6 (2,6-dimethoxy D6)	10mg
B1 – Antimicrobials Stable isotopes	DRE-C16995110	Sulfamerazine D4	10mg
B1 – Antimicrobials Stable isotopes	DRE-C16998110	Sulfamethoxazole D4 (benzene D4)	10mg
B1 – Antimicrobials Stable isotopes	DRE-C17875010	Trimethoprim D3 (4-methoxy D3)	10mg
B2a - Anthelmintics	DRE-CA10001000	Abamectin	100mg
B2a - Anthelmintics	DRE-C10065000	Albendazole	100mg
B2a - Anthelmintics	DRE-C10065300	Albendazole sulfone	10mg
B2a - Anthelmintics	DRE-C10065400	Albendazole sulfoxide	10mg
B2a - Anthelmintics	DRE-C10065200	Albendazole-2-aminosulfone	50mg
B2a - Anthelmintics	DRE-C10937000	Cambendazol	10mg
B2a - Anthelmintics	DRE-C10990000	Carbendazim	250mg
B2a - Anthelmintics	DRE-C11691500	Closantel	100mg
B2a - Anthelmintics	DRE-CA13083000	Doramectin	100mg
B2a - Anthelmintics	DRE-CA13187000	Eprinomectin	100mg
B2a - Anthelmintics	DRE-C13407000	Febantel	100mg
B2a - Anthelmintics	DRE-C13446000	Fenbendazole	100mg
B2a - Anthelmintics	DRE-C13678000	Flubendazole	100mg
B2a - Anthelmintics	DRE-CA14488000	Ivermectine	100mg
B2a - Anthelmintics	DRE-C14629700	Levamisol hydrochloride	250mg

Veterinary residues

B2a - Anthelmintics	DRE-C14798000	Mebendazole	100mg
B2a - Anthelmintics	DRE-CA15335000	Moxidectin	25mg
B2a - Anthelmintics	DRE-C15617000	Nitroxynil	100mg
B2a - Anthelmintics	DRE-C15783000	Oxfendazole	100mg
B2a - Anthelmintics	DRE-C15784000	Oxibendazole	100mg
B2a - Anthelmintics	DRE-C15793000	Oxyclozanide	100mg
B2a - Anthelmintics	LGCFOR0892.00	Parbendazole	10mg
B2a - Anthelmintics	DRE-C16805200	Rafoxanide	100mg
B2a - Anthelmintics	DRE-C17414500	Tetramisole hydrochloride	100mg
B2a - Anthelmintics	DRE-C17450000	Thiabendazole	250mg
B2a - Anthelmintics	DRE-C17795000	Triclabendazole	100mg
B2a - Anthelmintics	NMIAP1684	Triclabendazole sulfone	25mg
B2a - Anthelmintics	NMIAP1685	Triclabendazole sulfoxide	25mg
B2a – Anthelmintics Stable isotopes	DRE-C13678010	Flubendazole D3	10mg
B2a – Anthelmintics Stable isotopes	DRE-C14798010	Mebendazole D3	10mg
B2a – Anthelmintics Stable isotopes	DRE-C17414501	Tetramisole D5 hydrochloride	10mg
B2b - Anticoccidials	DRE-C12097000	Decoquinate	100mg
B2b - Anticoccidials	DRE-C12533000	Diclazuril	100mg

Compound group	Example part number	Part description	Unit
B2b - Anticoccidials	DRE-C14284500	Imidocarb	50mg
B2b - Anticoccidials	DRE-XA14593000AL	Lasalocid A sodium salt 100 µg/mL in Acetonitrile	1ml
B2b - Anticoccidials	DRE-CA14670000	Maduramicin ammonium salt	100mg
B2b - Anticoccidials	DRE-C15291000	Monensin sodium salt hydrate	100mg
B2b - Anticoccidials	DRE-C15508000	Nicarbazine	100mg
B2b - Anticoccidials	DRE-C16904500	Salinomycin sodium salt	100mg
B2b - Anticoccidials	DRE-C17592000	Toltrazuril	100mg
B2b - Anticoccidials	DRE-C16283700	Ponazuril	10mg
B2b - Anticoccidials	DRE-C17592040	Toltrazuril-sulfoxide	10mg
B2b – Anticoccidials Stable isotopes	DRE-C12097010	Decoquinate D5	10mg
B2d - Sedatives	DRE-C10010300	Acepromazine maleate salt	100mg
B2d - Sedatives	DRE-C10340500	Azaperol	10mg
B2d - Sedatives	DRE-C10340510	Azaperone	50mg
B2d - Sedatives	DRE-C10931900	n-Butyrophenone	250mg
B2d - Sedatives	DRE-C10968000	Carazolol	10mg
B2d - Sedatives	TRC-C183480-5MG	Carfentanil	5mg
B2d - Sedatives	DRE-C11575000	Chlorpromazine hydrochloride	250mg
B2d - Sedatives	LGCFOR0023.00	Diazepam	10mg

Veterinary residues

B2d - Sedatives	LGCFOR0144.00	Ketamine Hydrochloride	10mg
B2d - Sedatives	DRE-C16494500	Propionylpromazine hydrochloride	10mg
B2d - Sedatives	DRE-C17943500	Xylazine hydrochloride	100mg
B2d – Sedatives Stable isotopes	DRE-C10010320	Acepromazine D6 maleate	10mg
B2d – Sedatives Stable isotopes	DRE-C10340512	Azaperone D4	10mg
B2d – Sedatives Stable isotopes	DRE-C10968010	Carazolol D7	10mg
B2e - NSAIDs	DRE-C11045850	Carprofen	100mg
B2e - NSAIDs	DRE-C12537500	Diclofenac sodium	100mg
B2e - NSAIDs	LGCFOR0410.00	Flufenamic Acid	10mg
B2e - NSAIDs	DRE-C13726900	Flunixin	10mg
B2e - NSAIDs	DRE-C14278000	Ibuprofen	250mg
B2e - NSAIDs	DRE-C14532100	Ketoprofen	100mg
B2e - NSAIDs	DRE-C14860200	Mefenamic acid	250mg
B2e - NSAIDs	DRE-C14862500	Meloxicam	100mg
B2e - NSAIDs	DRE-C15483500	Naproxen	250mg
B2e - NSAIDs	MM0933.00	Oxyphenbutazone Monohydrate	250mg
B2e - NSAIDs	DRE-C16056500	Phenylbutazone	100mg
B2e - NSAIDs	DRE-C17591000	Tolfenamic acid	100mg
B2e – NSAIDs Stable isotopes	DRE-C13727010	Flunixin D3 (methyl D3)	10mg
B2e – NSAIDs Stable isotopes	DRE-C14862510	Meloxicam D3 (2-methyl D3)	50mg

Compound group	Example part number	Part description	Unit
B2f - Corticosteroids	LGCFOR0199.00	Beclometasone Dipropionate	10mg
B2f - Corticosteroids	DRE-C10575000	Betamethasone	100mg
B2f - Corticosteroids	DRE-C14224000	Hydrocortisone	250mg
B2f - Corticosteroids	LGCFOR0214.00	Cortisone	10mg
B2f - Corticosteroids	DRE-C12170400	Dexamethasone	100mg
B2f - Corticosteroids	TRC-F500485-10MG	Flunisolide	10mg
B2f - Corticosteroids	DRE-C15141700	6-alpha-Methylprednisolone	50mg
B2f - Corticosteroids	DRE-C16286500	Prednisolone	250mg
B2f - Corticosteroids	DRE-C16286550	Prednison	100mg
B2f - Corticosteroids	DRE-C17635000	Triamcinolone acetonide	100mg
B2f - Other pharmacologically active substances	DRE-C15143300	3-Methyl-quinoxaline-2-carboxylic acid	10mg
B2f - Other pharmacologically active substances	DRE-C10968300	Carbadox	100mg

Veterinary residues

B2f - Other pharmacologically active substances	DRE-C15724000	Olaquinox	100mg
B2f - Other pharmacologically active substances	DRE-C16713000	2-Quinoxalinecarboxylic acid	100mg
B3d - Mycotoxins	B-MYC0200-2	Aflatoxin B1 2 µg/mL in Acetonitrile	2ml
B3d - Mycotoxins	B-MYC0220-2	Aflatoxin B2 0.5 µg/mL in Acetonitrile	2ml
B3d - Mycotoxins	B-MYC0240-2	Aflatoxin G1 2 µg/mL in Acetonitrile	2ml
B3d - Mycotoxins	B-MYC0260-2	Aflatoxin G2 0.5 µg/mL in Acetonitrile	2ml
B3d - Mycotoxins	B-MYC0280-2	Aflatoxin M1 0.5 µg/mL in Acetonitrile	2ml
B3d - Mycotoxins	B-MYC0490-2	Ochratoxin A 10 µg/mL in Acetonitrile	2ml
B3d – Mycotoxins Stable isotopes	B-MYC0210-1.2	Aflatoxin B1 (U-13C17) 0.5 µg/mL in Acetonitrile	1.2ml
B3d – Mycotoxins Stable isotopes	B-MYC0230-1.2	Aflatoxin B2 (U-13C17) 0.5 µg/mL in Acetonitrile	1.2ml
B3d – Mycotoxins Stable isotopes	B-MYC0250-1.2	Aflatoxin G1 (U-13C17) 0.5 µg/mL in Acetonitrile	1.2ml
B3d – Mycotoxins Stable isotopes	B-MYC0270-1.2	Aflatoxin G2 (U-13C17) 0.5 µg/mL in Acetonitrile	1.2ml
B3d – Mycotoxins Stable isotopes	B-MYC7080-1.2	Aflatoxin M1 (U-13C17) 0.5 µg/mL in Acetonitrile	1.2ml
B3e - Dyes	DRE-C10427500	Basic Violet 3	100mg
B3e - Dyes	DRE-C14629400	Leucocrystal Violet	100mg
B3e - Dyes	DRE-C14629500	Leucomalachite green	100mg
B3e - Dyes	DRE-C14680000	Malachite green oxalate salt	250mg
B3e – Dyes Stable isotopes	DRE-C14629401	Leucocrystal Violet D6	10mg
B3e – Dyes Stable isotopes	DRE-C14629510	Leucomalachite green D6	10mg
B3e – Dyes Stable isotopes	DRE-C14680005	Malachite green D5 oxalate salt	10mg
B3e – Dyes Stable isotopes	DRE-C14680010	Malachite green D5 picrate	10mg
B3f - Other	DRE-C10230000	Amitraz	250mg
B3f - Other	DRE-C10810000	Bronopol	250mg

Veterinary residues

Certified Reference Materials and Matrix Materials

Certified Reference Materials are essential tools that laboratories can use to determine any method bias as part of the method validation process. Matrix materials can also be used by laboratories to monitor ongoing method performance.

LGC partners with key specialist manufacturers to supply your laboratory with the following products specifically targeted at veterinary residues analysis. For more details and additional products that might be of interest, check out our website lgcstandards.com.

Example part number	Part description
BCR-412	Bovine muscle - Diethylstilbestrol
ERM-BB386	Bovine urine (blank) - Stilbenes
ERM-BB389	Bovine urine (Diethylstilbestrol, Dienestrol, Hexestrol)
BCR-648-9	Bovine liver - Clenbuterol
ERM-BB124	Pork muscle - Nitroimidazoles
BCR-444	Porcine muscle (blank) - Chloramphenicol
ERM-BB130	Pork muscle - Chloramphenicol
NMIAMX012A+B	Nitrofurantoin marker Residues in Freeze Dried Prawn
BCR-695	Pig liver - Chlortetracycline
BCR-697	Pig muscle - Chlortetracycline

Part No	Part Description In Use	Net Weight
FAL-RFM1010-10	Almonds, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1010-100	Almonds, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1010-5	Almonds, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1010-50	Almonds, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1011-10	Sesame, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1011-100	Sesame, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1011-5	Sesame, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1011-50	Sesame, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1012-10	Walnuts, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1012-100	Walnuts, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1012-5	Walnuts, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1012-50	Walnuts, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1013-10	Soy, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1013-100	Soy, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1013-5	Soy, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1013-50	Soy, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1014-10	Eggs, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1014-100	Eggs, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1014-5	Eggs, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1014-50	Eggs, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1015-10	Hazelnuts, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1015-100	Hazelnuts, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1015-5	Hazelnuts, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1016-10	Mustard, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1016-100	Mustard, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1016-5	Mustard, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1016-50	Mustard, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1017-10	Peanut, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1017-100	Peanut, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1017-5	Peanut, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1017-50	Peanut, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1018-10	Milk, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1018-100	Milk, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1018-20	Milk, 20 mg/kg Allergen Reference Material	50g
FAL-RFM1018-5	Milk, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1018-50	Milk, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1019-100	Gluten, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1019-20	Gluten, 20 mg/kg Allergen Reference Material	50g
FAL-RFM1019-5	Gluten, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1019-50	Gluten, 50 mg/kg Allergen Reference Material	50g
FAL-RFM1020-10	Histamine, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1020-100	Histamine, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1020-5	Histamine, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1020-50	Histamine, 50 mg/kg Allergen Reference Material	50g

Allergans

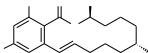
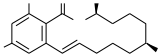
FAL-RFM1021-10	Celery, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1022-10	Fish, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1023-10	Crustaceans and Shellfish, 10 mg/kg Allergen Reference Material	50g
FAL-RFM1023-100	Crustaceans and Shellfish, 100 mg/kg Allergen Reference Material	50g
FAL-RFM1023-5	Crustaceans and Shellfish, 5 mg/kg Allergen Reference Material	50g
FAL-RFM1023-50	Crustaceans and Shellfish, 50 mg/kg Allergen Reference Material	50g

Single compounds

Code	Product	Unit
B-MYC5020-1	15-Acetoxyscirpenol 50 µg/mL in Acetonitrile	1 mL
B-MYC0340-1	3-Acetyl-deoxynivalenol (3-AcDON) 100 µg/mL in Acetonitrile	1 mL
B-MYC0340-2	3-Acetyl-deoxynivalenol (3-AcDON) 100 µg/mL in Acetonitrile	2 mL
B-MYC0340-5	3-Acetyl-deoxynivalenol (3-AcDON) 100 µg/mL in Acetonitrile	5 mL
B-MYC0340-C	3-Acetyl-deoxynivalenol	5 mg
B-MYC0345-C	3-Acetyl-deoxynivalenol	10 mg
B-MYC0350-1.2	3-Acetyl-deoxynivalenol ($^{13}\text{C}_{17}$) 25 µg/mL in Acetonitrile CERTAN®	1.2 mL
B-MYC0360-1	15-Acetyl-deoxynivalenol (15-AcDON) 100 µg/mL in Acetonitrile	1 mL
B-MYC0360-2	15-Acetyl-deoxynivalenol (15-AcDON) 100 µg/mL in Acetonitrile	2 mL
B-MYC0360-5	15-Acetyl-deoxynivalenol (15-AcDON) 100 µg/mL in Acetonitrile	5 mL
B-MYC0360-C	15-Acetyl-deoxynivalenol	5 mg
B-MYC0365-C	15-Acetyl-deoxynivalenol	10 mg
B-MYC0200-1	Aflatoxin B1 2 µg/mL in Acetonitrile	1 mL
B-MYC0200-2	Aflatoxin B1 2 µg/mL in Acetonitrile	2 mL
B-MYC0200-5	Aflatoxin B1 2 µg/mL in Acetonitrile	5 mL
ERM-AC057	Aflatoxin B1 in Acetonitrile The material is provided in amber glass ampoules filled with 4 mL. Compound Certified value Uncertainty Aflatoxin B1 3.79 µg/g 0.30 µg/g	Amp.
B-MYC0205-C	Aflatoxin B1	5 mg
B-MYC0210-1.2	Aflatoxin B1 ($\text{U-}^{13}\text{C}_{17}$) 0.5 µg/mL in Acetonitrile CERTAN®	1.2 mL
B-MYC0220-1	Aflatoxin B2 0.5 µg/mL in Acetonitrile	1 mL
B-MYC0220-2	Aflatoxin B2 0.5 µg/mL in Acetonitrile	2 mL
B-MYC0220-5	Aflatoxin B2 0.5 µg/mL in Acetonitrile	5 mL
ERM-AC058	Aflatoxin B2 in Acetonitrile The material is provided in amber glass ampoules filled with 4 mL. Compound Certified value Uncertainty Aflatoxin B2 3.80 µg/g 0.08 µg/g	Amp.
B-MYC0225-C	Aflatoxin B2	5 mg
B-MYC0230-1.2	Aflatoxin B2 ($\text{U-}^{13}\text{C}_{17}$) 0.5 µg/mL in Acetonitrile CERTAN®	1.2 mL
B-MYC0240-1	Aflatoxin G1 2 µg/mL in Acetonitrile	1 mL
B-MYC0240-2	Aflatoxin G1 2 µg/mL in Acetonitrile	2 mL
B-MYC0240-5	Aflatoxin G1 2 µg/mL in Acetonitrile	5 mL
ERM-AC059	Aflatoxin G1 in Acetonitrile The material is provided in amber glass ampoules filled with 4 mL. Compound Certified value Uncertainty Aflatoxin G1 3.78 µg/g 0.1 µg/g	Amp.
B-MYC0245-C	Aflatoxin G1	5 mg
B-MYC0250-1.2	Aflatoxin G1 ($\text{U-}^{13}\text{C}_{17}$) 0.5 µg/mL in Acetonitrile CERTAN®	1.2 mL
B-MYC0260-1	Aflatoxin G2 0.5 µg/mL in Acetonitrile	1 mL
B-MYC0260-2	Aflatoxin G2 0.5 µg/mL in Acetonitrile	2 mL
B-MYC0260-5	Aflatoxin G2 0.5 µg/mL in Acetonitrile	5 mL
ERM-AC060	Aflatoxin G2 in Acetonitrile The material is provided in amber glass ampoules filled with 4 mL.	Amp.

	Compound	Certified value	Uncertainty
	Aflatoxin G2	3.80 µg/g	0.07 µg/g
B-MYC0265-C	Aflatoxin G2		5 mg
B-MYC0270-1.2	Aflatoxin G2 (U- ¹³ C ₁₇) 0.5 µg/mL in Acetonitrile CERTAN®		1.2 mL
B-MYC0280-1	Aflatoxin M1 0.5 µg/mL in Acetonitrile		1 mL
B-MYC0280-2	Aflatoxin M1 0.5 µg/mL in Acetonitrile		2 mL
B-MYC0280-5	Aflatoxin M1 0.5 µg/mL in Acetonitrile		5 mL
B-MYC7080-1.2	Aflatoxin M1 (U- ¹³ C ₁₇) 0.5 µg/mL in Acetonitrile		1.2 mL
B-MYC0315-2	Agroclavine - Dried down standard Concentration after reconstitution 100 µg/mL		0.2 mg (2 mL)
B-MYC0315-5	Agroclavine - Dried down standard Concentration after reconstitution 100 µg/mL		0.5 mg (5 mL)
B-MYC5100-1	Alternariol - Dried down standard Concentration after reconstitution 100 µg/mL		0.1 mg (1 mL)
B-MYC5120-1	Alternariolmethylether - Dried down standard Concentration after reconstitution 100 µg/mL		0.1 mg (1 mL)
B-MYC5200-1	Beauvericin - Dried down standard Concentration after reconstitution 100 µg/mL		0.1 mg (1 mL)
B-MYC5300-1	Citreoviridin - Dried down standard Concentration after reconstitution 100 µg/mL		0.1 mg (1 mL)
B-MYC1400-1	Citrinin 100 µg/mL in Acetonitrile		1 mL
B-MYC0380-1	Deepoxy-deoxynivalenol 50 µg/mL in Acetonitrile Used as internal standard (IS) in mycotoxin analysis		1 mL
B-MYC0380-2	Deepoxy-deoxynivalenol 50 µg/mL in Acetonitrile		2 mL
B-MYC0380-5	Deepoxy-deoxynivalenol 50 µg/mL in Acetonitrile		5 mL
B-MYC0320-1	Deoxynivalenol (DON) 100 µg/mL in Acetonitrile		1 mL
B-MYC0320-2	Deoxynivalenol (DON) 100 µg/mL in Acetonitrile		2 mL
B-MYC0320-5	Deoxynivalenol (DON) 100 µg/mL in Acetonitrile		5 mL
IRMM-315	4-Deoxynivalenol in Acetonitrile The material is provided in amber glass ampoules filled with 4 mL. Certified value 4-Deoxynivalenol 25.1 ± 1.2 µg/g		Amp.
B-MYC0320-C	Deoxynivalenol		5 mg
B-MYC0325-C	Deoxynivalenol		10 mg
B-MYC0330-1.2	Deoxynivalenol (¹³ C ₁₅ , 98%) 25 µg/mL in Acetonitrile CERTAN ^a		1.2 mL
B-MYC0335-1	Deoxynivalenol-3-glucoside 50 µg/mL in Acetonitrile		1 mL
B-MYC0390-1	Diacetoxyscirpenol (DAS) 100 µg/mL in Acetonitrile		1 mL
B-MYC0390-2	Diacetoxyscirpenol (DAS) 100 µg/mL in Acetonitrile		2 mL
B-MYC0390-5	Diacetoxyscirpenol (DAS) 100 µg/mL in Acetonitrile		5 mL
B-MYC7100-1.2	Diacetoxyscirpenol (U- ¹³ C ₁₉) 0.5 µg/mL in Acetonitrile		1.2 mL
B-MYC3700-1	Fumagillin 100 µg/mL in Acetonitrile		1 mL
B-MYC0400-1	Fumonisin B1 50 µg/mL in Acetonitrile/Water (1:1)		1 mL
B-MYC0400-2	Fumonisin B1 50 µg/mL in Acetonitrile/Water (1:1)		2 mL
B-MYC0400-5	Fumonisin B1 50 µg/mL in Acetonitrile/Water (1:1)		5 mL
B-MYC0400-C	Fumonisin B1		5 mg
B-MYC0405-C	Fumonisin B1		10 mg
B-MYC0410-1.2	Fumonisin B1 (¹³ C ₃₄) 25 µg/mL in Acetonitrile/Water (1:1) CERTAN®		1.2 mL

B-MYC0420-1	Fumonisin B2 50 µg/mL in Acetonitrile/Water (1:1)	1 mL
B-MYC0420-2	Fumonisin B2 50 µg/mL in Acetonitrile/Water (1:1)	2 mL
B-MYC0420-5	Fumonisin B2 50 µg/mL in Acetonitrile/Water (1:1)	5 mL
B-MYC0423-1.2	Fumonisin B2 (U- ¹³ C ₃₄) 10 µg/mL in Acetonitrile/Water (1:1) CERTAN®	1.2 mL
B-MYC0425-1	Fumonisin B3 50 µg/mL in Acetonitrile/Water (1:1)	1 mL
B-MYC0430-1.2	Fumonisin B3 (U- ¹³ C ₃₄) 10 µg/mL in Acetonitrile/Water (1:1) CERTAN®	1.2 mL
B-MYC0450-1	Fusarenon X 100 µg/mL in Acetonitrile	1 mL
B-MYC0450-2	Fusarenon X 100 µg/mL in Acetonitrile	2 mL
B-MYC0450	Fusarenon X 100 µg/mL in Acetonitrile	5 mL
B-MYC0450-C	Fusarenon X	5 mg
B-MYC0455-C	Fusarenon X	10 mg
B-MYC1600-1	Gliotoxin 100 µg/mL in Acetonitrile	1 mL
B-MYC0560-1	HT-2 Toxin (HT-2) 100 µg/mL in Acetonitrile	1 mL
B-MYC0560-2	HT-2 Toxin (HT-2) 100 µg/mL in Acetonitrile	2 mL
B-MYC0560-5	HT-2 Toxin (HT-2) 100 µg/mL in Acetonitrile	5 mL
B-MYC0565-1.2	HT-2 Toxin (¹³ C ₂₂) 25 µg/mL in Acetonitrile CERTAN®	1.2 mL
B-MYC5500-1	Kojic acid - Dried down standard Concentration after reconstitution 100 µg/mL	0.1 mg (1 mL)
B-MYC7140-1.2	Kojic acid (U- ¹³ C ₆) 0.5 µg/mL in Acetonitrile	1.2 mL
B-MYC1800-1	Moniliformin 100 µg/mL in Acetonitrile	1 mL
B-MYC0457-1	Mycophenolic acid 100 µg/mL in Acetonitrile	1 mL
B-MYC0457-2	Mycophenolic acid 100 µg/mL in Acetonitrile	2 mL
B-MYC0457-5	Mycophenolic acid 100 µg/mL in Acetonitrile	5 mL
B-MYC0458-1.2	Mycophenolic acid (¹³ C ₁₇) 100 µg/mL in Acetonitrile CERTAN®	1.2 mL
B-MYC0460-1	Neosolaniol (NEO) 100 µg/mL in Acetonitrile Used as internal standard (IS) in mycotoxin analysis	1 mL
B-MYC0460-2	Neosolaniol (NEO) 100 µg/mL in Acetonitrile	2 mL
B-MYC0460-5	Neosolaniol (NEO) 100 µg/mL in Acetonitrile	5 mL
B-MYC0465-C	Neosolaniol	5 mg
B-MYC0470-C	Neosolaniol	10 mg
B-MYC0480-1	Nivalenol 100 µg/mL in Acetonitrile	1 mL
B-MYC0480-2	Nivalenol 100 µg/mL in Acetonitrile	2 mL
B-MYC0480-5	Nivalenol 100 µg/mL in Acetonitrile	5 mL
IRMM-316	Nivalenol in Acetonitrile The material is provided in amber glass ampoules filled with 4 mL. Certified value Nivalenol 24.0 ± 1.1 µg/g	Amp.
B-MYC7000-1.2	Nivalenol (U- ¹³ C ₁₅) 25 µg/mL in Acetonitrile	1.2 mL
B-MYC0480-C	Nivalenol hydrate	5 mg
B-MYC0485-C	Nivalenol hydrate	10 mg
B-MYC0490-1	Ochratoxin A 10 µg/mL in Acetonitrile	1 mL
B-MYC0490-2	Ochratoxin A 10 µg/mL in Acetonitrile	2 mL
B-MYC0490-5	Ochratoxin A 10 µg/mL in Acetonitrile	5 mL
B-MYC0490-C	Ochratoxin A	5 mg
B-MYC0495-C	Ochratoxin A	10 mg
B-MYC0495-1.2	Ochratoxin A (¹³ C ₂₀) 10 µg/mL in Acetonitrile CERTAN®	1.2 mL
B-MYC2000-1	Ochratoxin B 10 µg/mL in Acetonitrile	1 mL

B-MYC2050-1	Ochratoxin-alpha 10 µg/mL in Acetonitrile	1 mL
B-MYC0500-1	Patulin 100 µg/mL in Acetonitrile	1 mL
B-MYC0500-2	Patulin 100 µg/mL in Acetonitrile	2 mL
B-MYC0500-5	Patulin 100 µg/mL in Acetonitrile	5 mL
B-MYC0505-C	Patulin	5 mg
B-MYC7020-1.2	Patulin (U- ¹³ C ₇) 25 µg/mL in Acetonitrile	1.2 mL
B-MYC8110-1.2	Secalonic acid D 50 µg/mL in Chloroform	1.2 mL
B-MYC0520-1	Sterigmatocystin 50 µg/mL in Acetonitrile	1 mL
B-MYC0520-2	Sterigmatocystin 50 µg/mL in Acetonitrile	2 mL
B-MYC0520-5	Sterigmatocystin 50 µg/mL in Acetonitrile	5 mL
B-MYC0525-C	Sterigmatocystin	5 mg
B-MYC7060-1.2	Sterigmatocystin (U- ¹³ C ₁₈) 25 µg/mL in Acetonitrile	1.2 mL
B-MYC5800-1	Tenuazonic acid - Dried down standard Concentration after reconstitution 100 µg/mL	0.1 mg (1 mL)
B-MYC5900-1	Tentoxin - Dried down standard Concentration after reconstitution 100 µg/mL	1 mL
B-MYC0575-1	T-2 Tetraol 50 µg/mL in Acetonitrile	1 mL
B-MYC0540-1	T-2 Toxin (T-2) 100 µg/mL in Acetonitrile	1 mL
B-MYC0540-2	T-2 Toxin (T-2) 100 µg/mL in Acetonitrile	2 mL
B-MYC0540-5	T-2 Toxin (T-2) 100 µg/mL in Acetonitrile	5 mL
B-MYC0540-C	T-2 Toxin (T-2)	5 mg
B-MYC0545-C	T-2 Toxin (T-2)	10 mg
B-MYC0550-1.2	T-2 Toxin (T-2) (U- ¹³ C ₂₄) 25 µg/mL in Acetonitrile CERTAN [®]	1.2 mL
B-MYC0570-1	T-2 Triol 50 µg/mL in Acetonitrile	1.2 mL
B-MYC0580-1	Zearalanone 10 µg/mL in Acetonitrile	1 mL
B-MYC1200-1	alpha-Zearalanol (Zeranol) 10 µg/mL in Acetonitrile	1 mL
B-MYC1220-1	beta-Zearalanol (Taleranol) 10 µg/mL in Acetonitrile	1 mL
B-MYC1240-1	alpha-Zearalenol 10 µg/mL in Acetonitrile	1 mL
NMIAP1795	alpha-Zearalenol 	5 mg
B-MYC1260-1	beta-Zearalenol 10 µg/mL in Acetonitrile	1 mL
NMIAP1796	beta-Zearalenol 	5 mg
B-MYC0600-1	Zearalenone 100 µg/mL in Acetonitrile	1 mL
B-MYC0600-5	Zearalenone 100 µg/mL in Acetonitrile	5 mL
B-MYC0600-C	Zearalenone	5 mg
B-MYC0605-C	Zearalenone	10 mg
ERM-AC699	Zearalenone in acetonitrile The material is provided in amber glass ampoules filled with 4 mL. Compound Certified value Uncertainty Zearalenone 9.95 µg/mL 0.30 µg/mL	Amp.
B-MYC0610-1.2	Zearalenone (U- ¹³ C ₁₈) 25 µg/mL in Acetonitrile CERTAN [®]	1.2 mL
B-MYC0600-1	Zearalenone 100 µg/mL in Acetonitrile	1 mL
B-MYC0600-5	Zearalenone 100 µg/mL in Acetonitrile	5 mL
B-MYC0600-C	Zearalenone	5 mg

Mycotoxins

B-MYC0605-C	Zearalenone	10 mg
ERM-AC699	Zearalenone in acetonitrile The material is provided in amber glass ampoules filled with 4 mL. Compound Certified value Uncertainty Zearalenone 9.95 µg/mL 0.30 µg/mL	Amp.
B-MYC0610-1.2	Zearalenone (U- ¹³ C ₁₈) 25 µg/mL in Acetonitrile CERTAN®	1.2 mL

Multicomponent standards solutions

Code	Product	Unit
B-MYC0300-1	Aflatoxin Mixture Solvent: Acetonitrile Aflatoxin B12 µg/mL Aflatoxin G1 2 µg/mL Aflatoxin B20.5 µg/mL Aflatoxin G2 0.5 µg/mL	1 mL
B-MYC0300-2	Aflatoxin Mixture	2 mL
B-MYC0300-5	Aflatoxin Mixture	5 mL
B-MYC0305-1	Aflatoxin Mixture 0.25 µg/mL of each analyte in Acetonitrile Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2	1 mL
B-MYC0305-2	Aflatoxin Mixture	2 mL
B-MYC0305-6	Aflatoxin Mixture	6 mL
B-MYC0440-1	Fumonisin Mixture 50 µg/mL of each analyte in Acetonitrile/Water (1:1) Fumonisin B1 Fumonisin B2	1 mL
B-MYC0440-2	Fumonisin Mixture	2 mL
B-MYC0440-5	Fumonisin Mixture	5 mL
B-MYC0700-1	B-Trichothecene Mixture 100 µg/mL of each analyte in Acetonitrile 3-Acetyl-deoxynivalenol (3-AcDON) 15-Acetyl-deoxynivalenol (15-AcDON) Deoxynivalenol (DON) Nivalenol	1 mL
B-MYC0700-2	B-Trichothecene Mixture	2 mL
B-MYC0700-5	B-Trichothecene Mixture	5 mL
B-MYC0750-1	A + B-Trichothecenes and Zearalenone Mixture 10 µg/mL of each analyte in acetonitrile 3-Acetyl-deoxynivalenol (3-AcDON) Deoxynivalenol (DON) Nivalenol Fusarenon X HT-2 Toxin T-2 Toxin Diacetoxyscirpenol Zearalenone	1 mL
B-MYC0750-2	A + B-Trichothecenes and Zearalenone Mixture	2 mL
B-MYC0750-5	A + B-Trichothecenes and Zearalenone Mixture	5 mL

Mycotoxin matrix reference materials

Code	Product	Unit
ERM-BD282	Whole milk powder - Aflatoxin M1 (zero level) Compound Uncertainty µg/kg Aflatoxin M1 < 0.002	30 g
ERM-BD283	Whole milk powder - Aflatoxin M1 (low level) Compound Certified value µg/kg Uncertainty µg/kg Aflatoxin M1 0.111 0.018	30 g
ERM-BD284	Whole milk powder - Aflatoxin M1 (high level) Compound Certified value µg/kg Uncertainty µg/kg Aflatoxin M1 0.44 0.06	30 g
BCR-262R	Defatted peanut meal (blank) - Aflatoxin B1 Compound Certified value Aflatoxin B1 <3 µg/kg	100 g
BCR-263R	Defatted peanut meal - Aflatoxin B1, B2 and G1 Certified values µg/kg Aflatoxin B1: 17.1 ± 2.4 Aflatoxin B2: 3.0 ± 0.4 Aflatoxin B3: 3.0 ± 0.5	100 g
BCR-396	Wheat flour - Deoxynivalenol (DON) blank Certified value Deoxynivalenol <0.05 mg/kg	150 g
BCR-471	Wheat - Ochratoxin A (blank) Certified value Ochratoxin A < 0.6 mg/kg	55 g
BCR-377	Maize flour - Deoxynivalenol (blank) Certified value Deoxynivalenol <0.05 mg/kg	150 g
ERM-BC716	Maize - very low level ZON Certified value Zearalenone <5 µg/kg	60 g
ERM-BC717	Maize - low level ZON Compound Certified value Uncertainty Zearalenone.....83 µg/kg9 µg/kg Maize flour - Aflatoxins Aflatoxin B.....7.4 ± 0.37 µg/kg Aflatoxin B2.....0.7 ± 0.07 µg/kg Aflatoxin<LOD* Aflato.....<LOD* Aflatoxins total (sum of B1,B2,G1and G2) 8.9 ± 0.26 µg/kg *The LOD for Aflatoxin G1 of the used method for in-house characterization of the material is 0.1 µg/kg, for Aflatoxin G2 the LOD is 0.1 µg/kg	60 g 55 g
BCR-375	Compound feed - Aflatoxin B1 (blank) Certified value Aflatoxin B1 <1 µg/kg	50 g

Mycotoxins

B-MYC0894	Maize flour check sample - Fumonisin	100 g
	Indicative values µg/kg	
	Fumonisin B1: 270 ± 110	
	Fumonisin B3: <80	
	Fumonisin B2: <80	

Ergot alkaloids single compounds

Code	Product	Unit
B-MYC3100-5	Ergocornine - Dried down standard Concentration after reconstitution 100 µg/mL	0.5 mg (5 mL)
B-MYC3150-5	Ergocorninine - Dried down standard Concentration after reconstitution 25 µg/mL	125 mg
B-MYC3200-5	Ergocristine - Dried down standard Concentration after reconstitution 100 µg/mL	0.5 mg (5 mL)
B-MYC3280-5	Dihydroergocristine - Dried down standard Concentration after reconstitution 100 µg/mL	0.5 mg (5 mL)
B-MYC3250-5	Ergocristinine - Dried down standard Concentration after reconstitution 25 µg/mL	0.125 mg
B-MYC3300-5	Ergocryptine - Dried down standard Concentration after reconstitution 100 µg/mL	0.5 mg (5 mL)
B-MYC3400-5	Ergometrine - Dried down standard DRUG PRECURSOR Concentration after reconstitution 100 µg/mL	0.5 mg (5 mL)
B-MYC3450-5	Ergometrinine - Dried down standard DRUG PRECURSOR Concentration after reconstitution 25 µg/mL	0.125 mg
B-MYC3500-5	Ergosine - Dried down standard Concentration after reconstitution 100 µg/mL	0.5 mg (5 mL)
B-MYC3550-5	Ergosinine - Dried down standard Concentration after reconstitution 25 µg/mL	0.125 mg
B-MYC3600-5	Ergotamine - Dried down standard DRUG PRECURSOR Concentration after reconstitution 100 µg/mL	0.5 mg (5 mL)
B-MYC3650-5	Ergotaminine - Dried down standard DRUG PRECURSOR Concentration after reconstitution 25 µg/mL	0.125 mg

Marine Biotoxins

Name	LGC part number	Description	UoM
Okadaic Acid (OA)	CIF-CRM-OA	Okadaic Acid (sodium salt) solution in methanol	0.5 mL
Dinophysistoxin-1 (DTX1)	CIF-CRM-DTX1	Dinophysistoxin-1 (sodium salt) solution in methanol	0.5 mL
Dinophysistoxin-2 (DTX2)	CIF-CRM-DTX2	Dinophysistoxin-2 (sodium salt) solution in methanol	0.5 mL
Yessotoxin (YTX)	CIF-CRM-YTX	Yessotoxin (di-sodium salt) solution in methanol	0.5 mL
Homoyessotoxin (hYTX)	CIF-CRM-HYTX	Homoyessotoxin (di-sodium salt) solution in methanol	0.5 mL
Azaspiracid-1 (AZA1)	CIF-CRM-AZA1	Azaspiracid-1 solution in methanol	0.5 mL
Azaspiracid-2 (AZA2)	CIF-CRM-AZA2	Azaspiracid-2 solution in methanol	0.5 mL
Azaspiracid-3 (AZA3)	CIF-CRM-AZA3	Azaspiracid-3 solution in methanol	0.5 mL
Mussel matrix with DSP toxins	CIF-MUSSEL-DSP-2	Mussel matrix with DSP toxins	4 g
Domoic Acid (DA)	CIF-CRM-DA	Domoic Acid solution in water	0.5 mL
Decarbamoylsaxitoxin (dcSTX)	CIF-CRM-DCSTX	Decarbamoylsaxitoxin DI Dry icehydrochloride solution in DI Dry icelute aqueous hydrochloric acid Decarbamoylsaxitoxin dihydrochloride solution in dilute aqueous hydrochloric acid Please note that this product is considered a controlled drug in some countries, and needs to be treated according to the applicable regulations. After receipt of your order, if applicable, you may be contacted by your local office.	0.5 mL
	CIF-QC-DCSTX	Decarbamoylsaxitoxin dihydrochloride solution in dilute aqueous hydrochloric acid	0.5 mL
Neosaxitoxin (NEO)	CIF-CRM-NEO	Neosaxitoxin DI Dry icehydrochloride solution in DI Dry icelute aqueous hydrochloric acid Neosaxitoxin dihydrochloride solution in dilute aqueous hydrochloric acid Please note that this product is considered a controlled drug in some countries, and needs to be treated according to the applicable regulations. After receipt of your order, if applicable, you may be contacted by your local office.	0.5 mL
N-sulfocarbamoyl Gonyautoxins 2 & 3 (C1&2)	CIF-CRM-C12	N-sulfocarbamoyl Gonyautoxins 2 & 3 solution in dilute aqueous acetic acid	0.5 mL
Gonyautoxins 2 & 3 (GTX2&3)	CIF-CRM-GTX23	Gonyautoxins 2 & 3 solution in dilute aqueous hydrochloric acid	0.5 mL
Decarbamoylgonyautoxins 2 & 3 (dcGTX2&3)	CIF-CRM-DCGTX23	Decarbamoylgonyautoxins 2 & 3 solution in dilute aqueous hydrochloric acid	0.5 mL
Gonyautoxin 5 (GTX5)	CIF-QC-GTX5	Gonyautoxin 5 solution in dilute aqueous acetic acid	0.5 mL
13-desmethyl spirolide C	CIF-QC-DESMES	13-desmethyl spirolide C solution in methanol	0.5 mL
13,19-didesmethyl spirolide C	CIF-QC-DIDESMEC	13,19-didesmethyl spirolide C solution in methanol	0.5 mL
Tetrodotoxins	CIF-CRM-TTXS	Tetrodotoxins (Tetrodotoxin and 4,9-anhydro Tetrodotoxin) solution in dilute aqueous acetic acid	0.5 mL

Easi-tab™ food and water microbiology reference materials

easi-tab™ - Food microbiology enumeration tests

Product code	Organism	Approximate level † (cfu / RM)	Enumeration
LGCMIC-RM01-10	<i>Enterococcus faecalis</i>	50,000	Total viable count
LGCMIC-RM03-10*	<i>Escherichia coli</i>	50,000	<i>E. coli</i> / Coliforms / Enterobacteriaceae
LGCMIC-RM04-10*	<i>Staphylococcus aureus</i>	50,000	<i>Staphylococcus aureus</i>
LGCMIC-RM05-10	<i>Bacillus cereus</i>	50,000	<i>Bacillus cereus</i>
LGCMIC-RM06-10	<i>Clostridium perfringens</i>	50,000	<i>C. perfringens</i> / Clostridium spp.
LGCMIC-RM07-10	<i>Lactococcus lactis</i>	50,000	Lactic acid bacteria
LGCMIC-RM11-10*	<i>Enterococcus faecalis</i>	50,000	Total viable count and <i>E. coli</i> / Coliforms / Enterobacteriaceae
	<i>Escherichia coli</i>	50,000	
LGCMIC-RM12-10	<i>Penicillium chrysogenum</i>	50,000	Yeast and Moulds
	<i>Saccharomyces cerevisiae</i>	50,000	
LGCMIC-RM15-10	<i>Enterococcus faecalis</i>	50,000	<i>Enterococcus</i> spp.
LGCMIC-RM17-10*	<i>Pseudomonas aeruginosa</i>	50,000	<i>P. aeruginosa</i> / Pseudomonas spp.
LGCMIC-RM20-10	<i>Saccharomyces cerevisiae</i>	50,000	Yeast
LGCMIC-RM22-10	<i>Penicillium chrysogenum</i>	50,000	Mould
LGCMIC-RM23-10	<i>Bacillus subtilis</i>	100,000	Spore-forming bacilli
LGCMIC-RM28-10	<i>Listeria monocytogenes</i>	50,000	<i>Listeria monocytogenes</i>
LGCMIC-RM47-10*	<i>Legionella pneumophila</i>	50,000	<i>Legionella pneumophila</i>
* Products in vial format.			
† Actual levels will be given on the Statement of Measurement			

easi-tab™ - Food microbiology detection tests

Product code	Organism	Approximate level † (cfu / RM)	Detection
LGCMIC-RM08	<i>Salmonella</i> ser. Abony	20	Group B Salmonella spp.
LGCMIC-RM09	<i>Listeria monocytogenes</i>	50	<i>Listeria monocytogenes</i>
LGCMIC-RM13	<i>Salmonella</i> ser. Nottingham	20	Group I Salmonella spp.
LGCMIC-RM69	<i>Salmonella</i> ser. Typhimurium	20	Group B Salmonella spp.
LGCMIC-RM70	<i>Salmonella</i> ser. Tranoroa	20	Group 55 Salmonella spp.
LGCMIC-RM25	<i>Escherichia coli</i> O157:H7	50	<i>E. coli</i> O157:H7 (VT-ve)
LGCMIC-RM68	<i>Cronobacter sakazakii</i>	50	<i>Cronobacter</i> spp.
† Actual levels will be given on the Statement of Measurement			

Easi-tab™ food and water microbiology reference materials

easi-tab™ - Water microbiology enumeration and / or detection

Product code	Organism	Approximate level † (cfu / RM)	Enumeration and / or detection
LGCMIC-RM29	<i>Enterococcus faecalis</i>	5,000	Total viable count at 22°C and 37°C
LGCMIC-RM30*	<i>Escherichia coli</i>	100	<i>E. coli</i> / Membrane filtration
LGCMIC-RM31*	<i>Pseudomonas aeruginosa</i>	100	<i>P. aeruginosa</i> / Membrane filtration
LGCMIC-RM32	<i>Enterococcus faecalis</i>	100	Enterococci / Membrane filtration
LGCMIC-RM33	<i>Clostridium perfringens</i>	100	SRC / <i>C. perfringens</i> / Membrane filtration
LGCMIC-RM34*	<i>Raoultella planticola</i>	100	Enumeration of Conforms / Membrane filtration

* Products in vial format.

† Actual levels will be given on the Statement of Measurement.

easi-tab™ - Sterile materials

Product code	Description	Weight (g)	Application
LGCMIC-RM51	Sterile skimmed milk powder	10	For use in: • Method validation • Training programmes • Internal quality control • Culture media quality monitoring • Use with easi-tab™ or your own inoculum
LGCMIC-RM52	Sterile skimmed milk powder	25	
LGCMIC-RM53	Sterile oatmeal	10	
LGCMIC-RM54	Sterile oatmeal	25	
LGCMIC-RM55	Sterile cocoa powder	10	
LGCMIC-RM56	Sterile cocoa powder	25	
LGCMIC-RM57	Sterile dried diced chicken	10	
LGCMIC-RM58	Sterile dried diced chicken	25	
LGCMIC-RM59	Sterile dried seafood	10	
LGCMIC-RM60	Sterile dried seafood	25	

† Actual levels will be given on the Statement of Measurement.

For further information, or if you require substances or materials not currently listed please contact one of our local sales offices.

Brazil

Tel: +55 12 3302 5880

Email: bz@lgcstandards.com

Bulgaria

Tel: +359 (0)2 971 4955

Email: bg@lgcstandards.com

China

Tel: +86 (10)56315129

Email: infochina@lgcgroup.com

France

Tel: +33 (0)3 88 04 82 82

Email: fr@lgcstandards.com

Germany

Tel: +49 (0)281 9887 0

Email: de@lgcstandards.com

Hungary

Tel: +40 364 116890

Email: ro@lgcstandards.com

India

Tel: +91 (0)80 6701 2000

Email: in@lgcpromochem.com

Ireland

Tel: +44 (0)20 8943 8480

Email: uksales@lgcstandards.com

Italy

Tel: +39 02 2247 6412

Email: it@lgcstandards.com

Middle East

Tel: +49 (0)281 9887 0

Email: de@lgcstandards.com

Netherlands

Tel: +31 (0)643 775 422

Email: nl@lgcstandards.com

Poland

Tel: +48 22 751 31 40

Email: pl@lgcstandards.com

Romania

Tel: +40 364 116890

Email: ro@lgcstandards.com

Russia

Tel: +7 812 7770488

Email: ru@lgcgroup.com

Nordic Countries

Tel: +49 (0)281 9887 0

Email: de@lgcstandards.com

South Africa

Tel: +27 (0)11 466 4321

Email: info@industrialanalytical.co.za

Spain

Tel: +34 (0)93 308 4181

Email: es@lgcstandards.com

Turkey

Tel: +90 216 360 0870

Email: tur@lgcstandards.com

United Kingdom

Tel: +44 (0)20 8943 8480

Email: uksales@lgcstandards.com

USA + Canada

Tel: +1 (603) 622 7660

Email: lgcusa@lgcgroup.com



www.lgcstandards.com

Science for a safer world

Brazil • Bulgaria • China • Czech Republic • France • Germany • Hungary • India • Ireland • Italy • Netherlands
Nordic countries • Poland • Romania • Russia • South Africa • Spain • Turkey • United Kingdom • USA

All trademarks and registered trademarks mentioned herein are the property of their respective owners. All other trademarks and registered trademarks are the property of LGC and its subsidiaries. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or any retrieval system, without the written permission of the copyright holder. © LGC Limited, 2015. All rights reserved. 4721/CB/0316. updated 3/30/18