

S2. Table: Oligonucleotides used in this study

Oligo	Sequence (5'-3')	Description
P7	ATCTCATTAGATTTGGAAGCTTGTGGGT T	5' CAS9
P8	TTCGAGCGTCCCAAACCTTCT	3' CAS9
P1	AAGAAAGAAAGAAAACAGGAGTGAA	5' sgRNA
P4	ACAAATATTTAAACTCGGGACCTGG	3' sgRNA
P5	GCGGCCGCAAGTGATTAGACT	5' sgRNA
P6	GCAGCTCAGTGATTAAGAGTAAAGATG G	3' sgRNA
orf19.1604-5'FW	TATAGGGCGAATTGGAGCTCGACGTT GATAATTTTCATCACC	<i>RHA1</i> deletion
orf19.1604-5'RV	AGAGCGGCCCGCCACCGCGGTGGTATA AGTATAATTTAGGGG	<i>RHA1</i> deletion
orf19.1604-3'FW	AGTATAGGAATTCCTCGAGCAAAAATG AAATAGGTAAGCGA	<i>RHA1</i> deletion
orf19.1604-3'RV	AAAAGCTGGGTACCGGGCCCAATCAG GGAACCAAAGGTGA	<i>RHA1</i> deletion
1604-5'FW-Kompl	ATATGAGCTCGGGCCCGACGTTGATA ATTTTCATCACC	<i>RHA1</i> reinsertion
1604-3'RV-Kompl	AAAAGCTGGGTACCGCGGAATCAG GGAACCAAAGGTGA	<i>RHA1</i> reinsertion
UME6-ko1	CATTAGAGCTCAAATTCCTTGAGAAAG ATCAAAG	<i>UME6</i> deletion
UME6-ko2	AAACCCGCGGAACTAATTGGAAGTAA TTGAGG	<i>UME6</i> deletion
UME6-ko3	GTTAATCTCGAGGCTAAGTTAAGAATT AAGAATTAACAGG	<i>UME6</i> deletion
UME6-ko4	CATTAGGGCCCAGACTTTTCCGTATGA TGAAACA	<i>UME6</i> deletion
RHA1-sg-F	ATTTGCAGCTTATAGAAAATAACACG	sgRNA for <i>RHA1</i>
RHA1-sg-R	AAAACGTGTTATTTTCTATAAGCTGC	sgRNA for <i>RHA1</i>
RHA1-Rep-F	CAGTCATACTCCTGTACCTTTGCATTT GAACGACCAGGCTCAGCTTATAGAATA ATAACACTCGAG	repair DNA for <i>RHA1</i>
RHA1-Rep-R	ATATTGAGGACCCAGTGTGCGCCGCTG GCATTGAAAACTCGAGTGTTATTATT CTATAAGCTGAGC	repair DNA for <i>RHA1</i>
RHA1-In-F	AGTGCACAGAAGAGCTACCTTC	5' <i>RHA1</i> Internal checking
RHA1-In-R	GTTGGTGCTGATGGTTGTGGTT	3' <i>RHA1</i> Internal checking
RHA1-F	TCTCAAGCAGCGAAAATCTCCA	5' <i>RHA1</i> checking primer
RHA1-R	CGGGGTACCATCTGGTTCAATAAAGG C	3' <i>RHA1</i> checking primer
BRG1-sg-F	TCACGATCAACCATTAGTGGGTTTTAG AGCTAGAAATAGCAAGTTAAA	sgRNA for <i>BRG1</i> promoter
BRG1-sg-R	CCACTAATGGTTGATCGTGACAAATTA AAAATAGTTTACGCAAGTC	sgRNA for <i>BRG1</i> promoter

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BRG1-HygBRep-F	ATTTGATATTTCAACGTTATTTCTCCAT CCATACTTGTTACATTATAAATATTCAC TACTATTCCAGAAATTCAAATTGCAAGT ATATCTGGCAAACCTG	repair DNA for <i>BRG1</i> promoter
BRG1-HygBRep-R	TGTGCAAAAAATTAATTA AAACTATTT TAATGACGAATTAAGGAATTTGGGTT GGGTAAGCAACAGGAATACCGCCAGT TTATGATGGAATGAATGGG	repair DNA for <i>BRG1</i> promoter
BRG1-In-F	GCAACAACAACCAGTGCACGTA	5' BRG1 Internal checking
BRG1-In-R	TGTGGTTGTTGTGGTGGGGTAT	3' BRG1 Internal checking
BRG1-F	ACCCGTTTAACATTTGCAGCTT	5' BRG1 checking primer
BRG1-R	TTCGGTTTGATCCAGCTCAGGA	3' BRG1 checking primer
UME6-sg-F	ATGAGATCTTTGGCACCAGTGTTTTAG AGCTAGAAATAGCAAGTTAAA	sgRNA for <i>UME6</i> promoter
UME6-sg-R	ACTGGTGCCAAAGATCTCATCAAATTA AAAATAGTTTACGCAAGTC	sgRNA for <i>UME6</i> promoter
UME6-HygBRep-F	ATATTCTATATCTTCACTCCAAACATCA ATATCCTCAATTTACTTCCAATTAGTTT TATTTTTTAATCCACTGTATAAGCAAGT ATATCTGGCAAACCTG	5' UME6 Repair DNA
UME6-HygBRep-R	GCAACAACAACAACAATAACCACC GTCAACCGTCAACCTGTTAATTCTTAA TTCTTAACTTAGCCTAATTTTTATGATG GAATGAATGGG	3' UME6 Repair DNA
UME6-In-F	TCTTCAGCACCAAATTCGCCTT	5' UME6 Internal checking
UME6-In-R	GCAGCACTAACACTGACACCAC	3' UME6 Internal checking
UME6-F	TGGCTCATTATTGCTTTGCTTT	5' UME6 checking primer
UME6-R	CGGGAAAAGTTGCAAGAGTTGGT	3' UME6 checking primer
RHA1_TAP_URA3_F	ATATTTGGACGTGAGGGTAAAGTCTTT GATGATATTGGAACCATAAAACAGGGA CTTGAAAACCTTTGAGTTGGCACAAAAG GAAATAGCAAAATGTGTTGGTCGACGG ATCCCCGGG TT	5' RHA1_TAP_URA3
RHA1_TAP_URA3_R	TGCTACATTCACTAAAACTGTATCTAC ATAATGGTTTTATTGATAGCCAGTACTA AAATTTCAATACAATCGCTTACCTATTT CATTTTGTTAACACATCGATGAATTCGA GCTCGTT	3' RHA1_TAP_URA3
HygB-F-5'	TGCTTCTGCTGCTTTGCCAATTCAG	5' HYGB checking primer
Hygb-R-3'	ACAACCATCAGTCCAAACAGCAGCTGA	3' HYGB checking primer
Nat-in-Fwd	TGATTGATCTGTCCGGCAGTGGT	5' NAT Internal checking
Nat-in-Rvs	GTCAATGCCGCCGAGAGTAAAG	3' NAT Internal checking