

Supporting Information I**Supporting Information Table 1.** Assigned ions for the MS/MS spectrum of FAIGpSAR

Ion	Theoretical m/z	Observed m/z
y ₂	246.16	246.34
a ₃	304.20	304.13
y ₃ -H ₃ PO ₄	315.18	315.30
a ₄	361.22	361.48
y ₄ -H ₃ PO ₄	372.26	372.26
y ₃ -NH ₃	396.13	396.40
y ₃	413.15	413.20
a ₅ -H ₃ PO ₄	430.25	430.45
b ₅ -H ₃ PO ₄	458.24	458.46
y ₄	470.18	470.35
y ₅ -H ₃ PO ₄	485.28	485.43
a ₆ -H ₃ PO ₄	501.28	501.21
b ₆ -H ₃ PO ₄	529.28	529.47
b ₅ , y ₆ -H ₃ PO ₄	556.22 or 556.32	556.45
y ₅ -NH ₃	566.23	566.37
y ₅	583.26	583.34
b ₆	627.25	627.26
y ₆	654.47	654.47
[M-H ₃ PO ₄ +H] ⁺	703.37	703.51

Supporting Information Table 2. Assigned ions for the MS/MS spectrum of EGAEpTTK.

Ion	Theoretical m/z	Observed m/z
b ₂	187.07	187.06
y ₂ -H ₂ O	230.15	230.29
y ₂ -NH ₃	231.13	231.38
y ₂	248.16	248.20
b ₃	316.11	316.26
y ₃ -H ₃ PO ₄	331.20	331.23
b ₄	387.15	387.27
y ₃ -H ₂ O	411.16	411.42
y ₃	429.18	429.24
y ₄ -H ₃ PO ₄	460.24	460.31
a ₅	488.20	488.55
b ₅	516.19	516.21
y ₅ -H ₃ PO ₄	531.28	531.42
y ₄ -H ₂ O	540.21	540.32
y ₄ -NH ₃	541.19	541.32
y ₄	558.22	558.27
y ₆ -H ₃ PO ₄	588.30	588.94
y ₅	629.25	629.27
b ₇	644.25	644.26
y ₆ -H ₂ O	668.27	668.22
y ₆	686.28	686.27
y ₇ -H ₃ PO ₄	717.34	717.56
b ₈	773.30	773.07
y ₈ -H ₃ PO ₄	788.38	788.53
y ₇ -H ₂ O	797.31	797.38
y ₇ -NH ₃	798.29	798.35
y ₇	815.32	815.40
b ₉ -H ₃ PO ₄	856.33	856.34
y ₈ -H ₂ O	868.35	868.26
y ₈	886.36	886.36
y ₉ -H ₃ PO ₄	917.42	917.25
b ₉	954.31	954.07
b ₁₀ -H ₃ PO ₄	957.38	957.39
y ₉ -H ₂ O	997.39	997.41
y ₉ -NH ₃	998.37	998.32
y ₉	1015.40	1015.78
b ₁₀ -H ₂ O	1037.35	1037.40
y ₁₀ -H ₂ O	1054.41	1054.42
b ₁₀ or y ₁₀ -NH ₃	1055.36 or 1055.39	1055.28
y ₁₀	1072.42	1072.46
[M-H ₃ PO ₄ + 2H] ⁺²	551.74	551.37

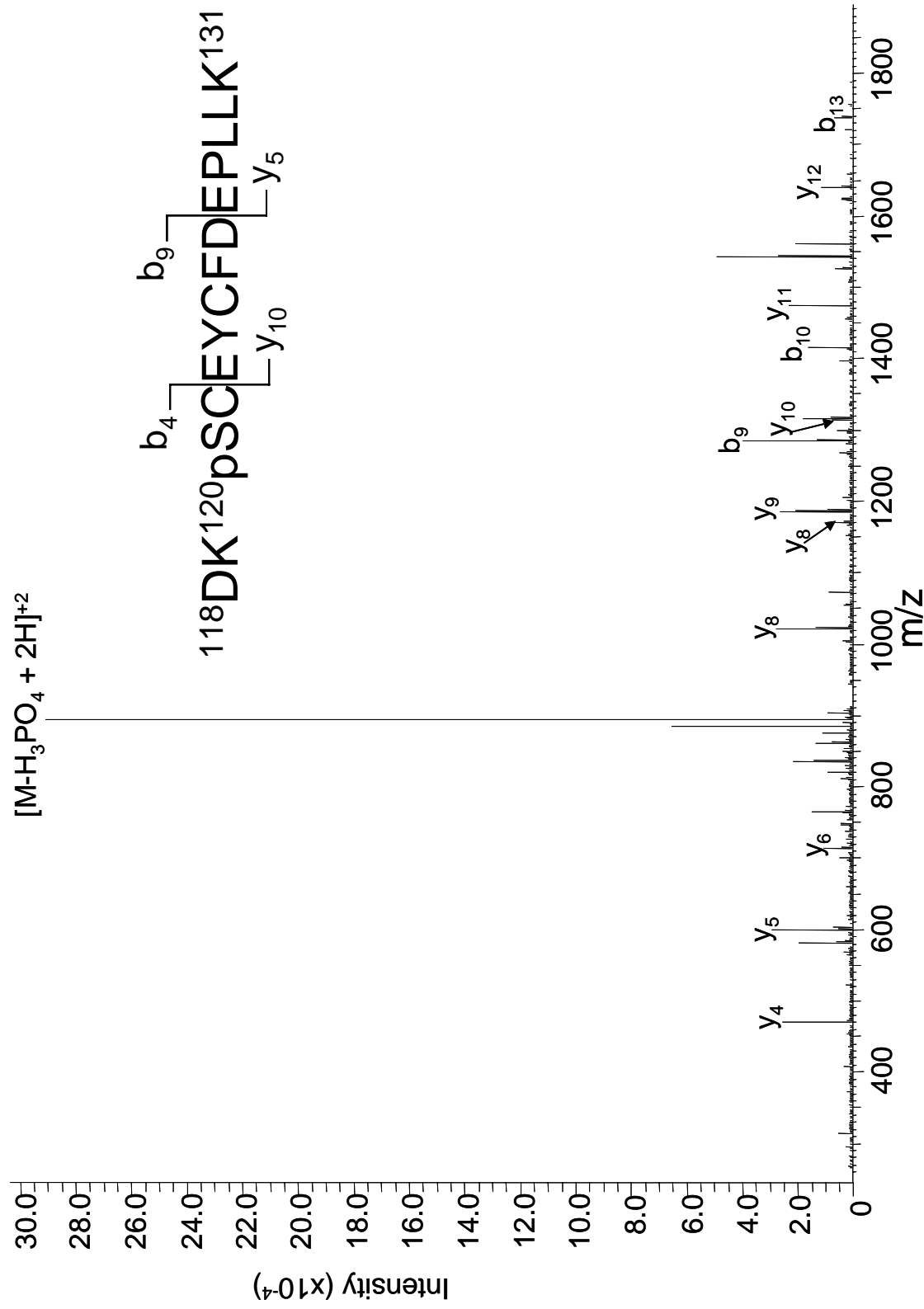
Supporting Information Table 3. Assigned ions for the spectra ALRDEYIMpSK

Ion	Theoretical m/z	Measured m/z
y ₂ -H ₃ PO ₄	216.13	216.17
y ₂	314.11	314.25
b ₃	341.23	341.33
y ₃ -H ₃ PO ₄	347.18	347.34
y ₃	445.15	445.21
b ₄	456.26	456.20
y ₄ -H ₃ PO ₄	460.26	460.40
a ₅ -NH ₃	540.28	540.08
y ₄ -NH ₃	541.21	541.59
y ₄	558.24	558.13
b ₅	585.30	585.33
[M-H ₃ PO ₄ + 2H] ⁺²	604.30	604.58
y ₅ -H ₃ PO ₄	623.32	623.48
y ₅	721.30	721.45
b ₆	748.36	748.40
y ₆ -H ₃ PO ₄	752.37	752.44
y ₆ -NH ₃ or a ₇	833.32 or 833.45	845.37
y ₆	850.34	850.30
b ₇	861.45	861.51
y ₇	965.37	965.48
b ₈	992.49	992.53
b ₉ -H ₃ PO ₄	1061.51	1061.59
y ₈	1121.47	1121.67
b ₉	1159.49	1159.35
b ₉ +H ₂ O	1177.50	1177.59

Supporting Information Table 4. Assigned ions for the spectra ALRDEpYIMSK

Ion	Theoretical m/z	measured m/z
y ₂ -H ₂ O	216.13	216.13
y ₂	234.15	234.11
b ₃	341.23	341.33
a ₃	313.24	313.43
b ₃ -NH ₃	324.20	324.40
b ₃	341.23	341.32
y ₃ -H ₂ O	347.18	347.27
y ₃ -NH ₃	348.16	348.29
y ₃	365.19	365.23
b ₄	456.26	456.37
y ₄	478.27	478.42
a ₅	557.30	557.33
b ₅	585.30	585.30
y ₅ -H ₃ PO ₄	623.32	623.27
y ₅	721.30	721.20
b ₆ -NH ₃	811.30	811.42
b ₆	828.33	828.31
y ₆ -H ₂ O	832.33	832.42
y ₆ -NH ₃	833.32	833.55
b ₇ -H ₃ PO ₄	843.44	843.54
y ₆	850.34	850.30
a ₇ -NH ₃	896.39	896.72
a ₇	913.42	913.45
b ₇	941.41	941.51
y ₇ -H ₂ O	947.36	947.17
y ₇	965.37	965.37
b ₈ -H ₃ PO ₄	974.48	974.29
a ₈	1044.46	1044.38
b ₉ -H ₃ PO ₄	1061.51	1061.65
b ₈	1072.45	1072.39
b ₉ -H ₂ O	1141.48	1141.46
b ₉ -NH ₃	1142.46	1142.52
b ₉	1159.49	1159.43
b ₉ +H ₂ O	1177.50	1177.47

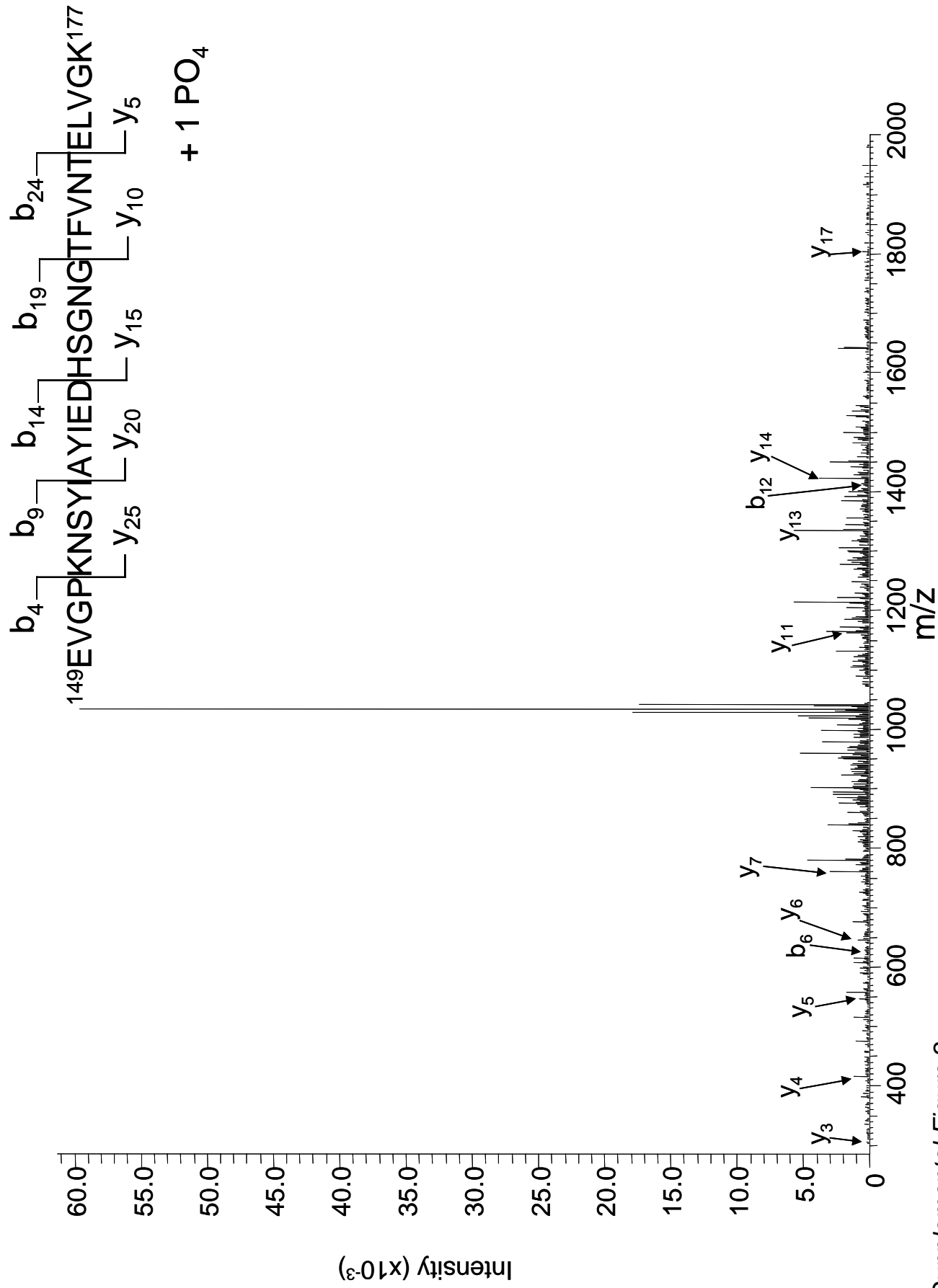
Supporting Information Spectra



Supplemental Figure 1

Assigned ions for DKpSCEYCFDEPLLK

Ion	Theoretical m/z	Observed m/z
b ₃ -H ₃ PO ₄	313.15	313.20
y ₃	373.28	373.28
b ₃	411.13	411.23
y ₄ -NH ₃	453.31	453.36
y ₄	470.33	470.47
b ₄ -H ₃ PO ₄	473.18	473.47
y ₅ -NH ₃	582.35	582.63
y ₅	599.38	599.43
b ₅ -H ₃ PO ₄	602.22	602.16
b ₅ -NH ₃	683.17	683.21
y ₆ -NH ₃	697.38	697.25
b ₅	700.20	700.27
y ₆	714.40	714.50
b ₆ -H ₃ PO ₄	765.29	765.28
y ₇	861.47	861.40
b ₆	863.26	863.45
y ₈ -NH ₃	1004.48	1004.46
y ₈	1021.50	1021.47
b ₇	1023.30	1023.41
b ₈ -H ₃ PO ₄	1072.39	1072.33
b ₈ -NH ₃	1153.34	1153.48
y ₉ -NH ₃	1167.54	1167.45
b ₈	1170.36	1170.44
y ₉	1184.57	1184.56
b ₉ -H ₃ PO ₄	1187.41	1187.33
b ₉ -NH ₃	1268.36	1268.97
b ₉	1285.39	1285.35
y ₁₀ -NH ₃	1296.58	1296.45
y ₁₀	1313.61	1313.70
b ₁₀ -H ₃ PO ₄	1316.46	1616.41
b ₁₀ -NH ₃	1397.41	1397.58
b ₁₀	1414.43	1414.41
y ₁₁ -NH ₃	1456.61	1456.66
b ₁₁	1511.49	1511.64
b ₁₂ -H ₃ PO ₄	1526.59	1526.51
y ₁₂ -H ₃ PO ₄	1542.66	1542.58
y ₁₂ -NH ₃	1623.61	1623.63
b ₁₂	1624.57	1624.48
b ₁₃ -H ₃ PO ₄	1639.68	1639.70
y ₁₂	1640.64	1640.61
b ₁₃ -NH ₃	1720.63	1720.41
b ₁₃	1737.65	1737.78
[M-H ₃ PO ₄ +2H] ⁺²	893.40	893.69

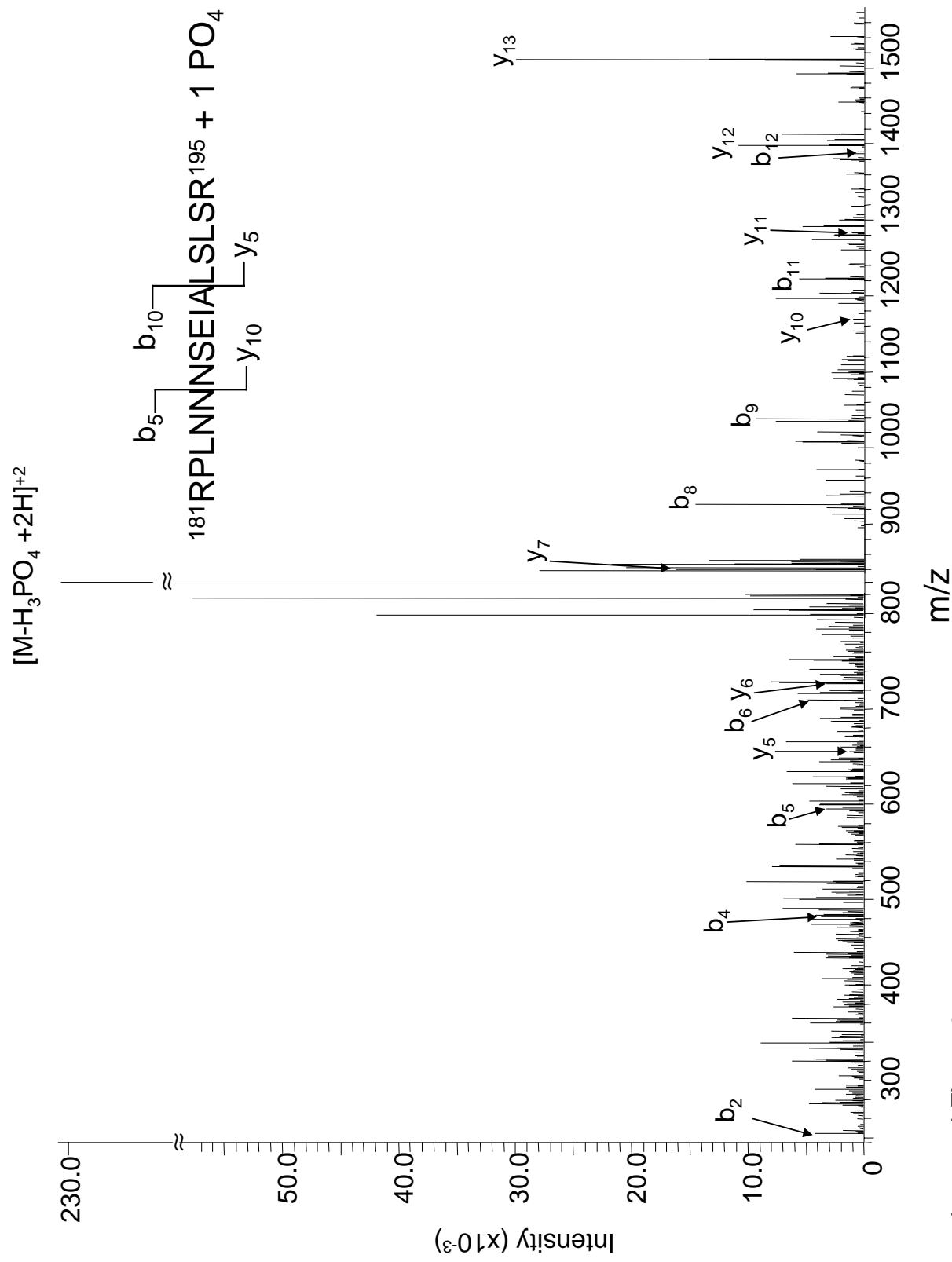


Supplemental Figure 2

Assigned ions for EVGPKNSYIAYIEDHSGNGTFVNTELVGK + 1 PO₄

Ion	Theoretical m/z	Observed m/z
y ₃	303.20	303.18
y ₄	416.29	416.33
b ₅ -NH ₃	494.26	494.15
y ₅ -NH ₃	528.30	528.47
y ₅	545.33	545.63
b ₆ -NH ₃	608.30	608.48
y ₆ -NH ₃	629.35	629.55
y ₆	646.38	646.68
b ₇ -H ₃ PO ₄	694.35	694.22
y ₇ -H ₂ O	742.41	742.74
y ₇ -NH ₃	743.39	743.50
y ₇	760.42	760.50
b ₇ -NH ₃	775.30	775.81
y ₈ -H ₂ O	841.48	841.43
b ₈ -H ₃ PO ₄	857.42	857.49
y ₈	859.49	859.67
y ₉ -H ₂ O	988.55	988.58
y ₉	1006.56	1006.40
b ₁₀ -H ₃ PO ₄	1041.54	1041.37
y ₁₀ -H ₂ O	1089.59	1089.17
y ₁₀ -NH ₃	1090.58	1090.16
b ₁₀ -NH ₃	1122.49	1122.56
b ₁₀	1139.51	1139.57
y ₁₀ -H ₂ O	1146.62	1146.94
y ₁₁	1164.33	1164.66
b ₁₁ -H ₃ PO ₄	1204.60	1204.70
y ₁₂ -H ₂ O	1260.66	1260.46
y ₁₂ -NH ₃	1261.64	1261.25
y ₁₂	1278.67	1278.58
b ₁₁ -NH ₃	1285.55	1285.66
b ₁₁	1302.58	1302.21
y ₁₃ -H ₂ O	1317.68	1317.34
b ₁₂ -H ₃ PO ₄ or y ₁₃ -NH ₃	1317.68 or 1317.68	1317.34
y ₁₃ -NH ₃	1318.66	1318.64
y ₁₃	1335.69	1335.78
b ₁₂ -NH ₃	1398.63	1398.42
y ₁₄ -H ₂ O	1404.71	1404.31
y ₁₄ -NH ₃	1405.70	1405.57
b ₁₂	1415.66	1415.80
y ₁₄	1422.72	1422.63
b ₁₃ -H ₃ PO ₄	1446.73	1446.51
b ₁₃ -NH ₃	1527.68	1527.97

$y_{15}\text{-H}_2\text{O}$	1541.77	1541.69
b_{13}	1544.70	1544.69
$b_{14}\text{-H}_3\text{PO}_4$	1561.75	1561.52
$b_{14}\text{-NH}_3$	1642.70	1642.68
$y_{16}\text{-H}_2\text{O}$	1656.80	1656.84
b_{14}	1659.73	1659.76
$b_{15}\text{-NH}_3$	1779.76	1779.57
$y_{17}\text{-H}_2\text{O}$ or $b_{16}\text{-H}_3\text{PO}_4$	1785.84	1785.03
$y_{17}\text{-NH}_3$	1786.82	1786.88
$y_{18}\text{-H}_2\text{O}$	1898.92	1898.10
$[\text{M-H}_3\text{PO}_4 + 3\text{H}]^{+3}$	1040.51	1040.88

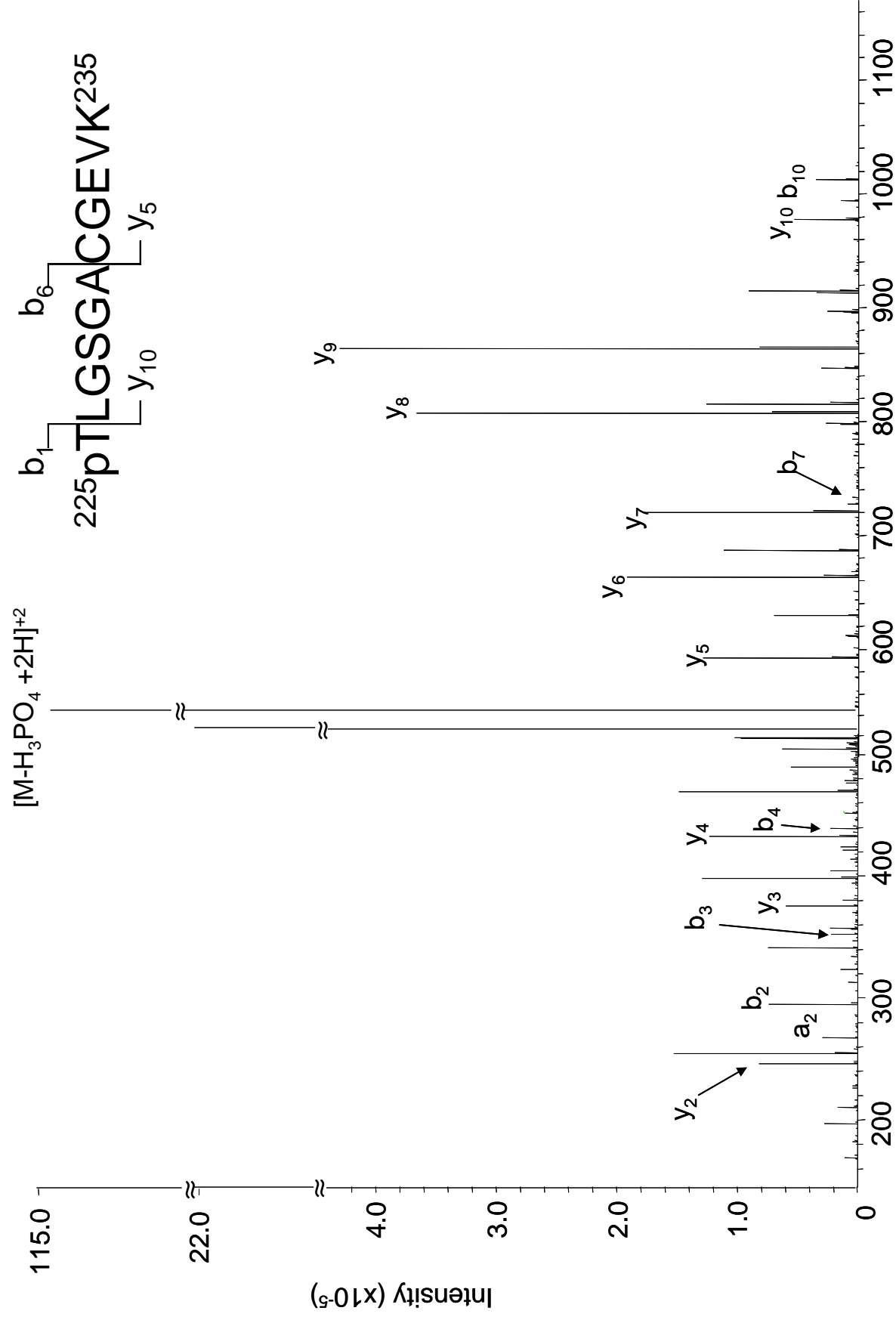


Supplemental Figure 3

Assigned ions for RPLNNSSEIALSLSR +1 PO₄

Ion	Theoretical m/z	Observed m/z
b ₂	254.16	254.26
y ₂ (pSLSR)	262.15	262.03
b ₃ -NH ₃	350.22	350.17
y ₃ -NH ₃	358.21	358.31
y ₃ (pSLSR)	375.24	375.36
y ₄ -H ₃ PO ₄	444.26	444.45
y ₃ (SLpSR)	455.20	455.30
b ₄	481.29	481.49
y ₄ -H ₂ O	524.22	524.17
y ₄	542.23	542.36
a ₅ -NH ₃	550.31	550.39
y ₅ -H ₃ PO ₄	557.34	557.58
a ₅	567.34	567.32
b ₅	595.33	595.27
y ₆ -H ₃ PO ₄	628.38	628.61
y ₅ -H ₂ O	637.31	637.29
y ₅	655.32	655.48
a ₆ -NH ₃	664.35	664.03
a ₆	681.38	681.35
y ₆ -H ₂ O	708.34	708.42
y ₆ -NH ₃ or b ₆	709.33 or 709.37	709.59
y ₆	726.36	726.22
a ₇	768.41	768.14
b ₇ -H ₂ O	778.40	778.55
b ₇	796.41	796.42
y ₇ -H ₂ O	821.43	821.68
y ₇ -NH ₃	822.41	822.60
y ₇	839.44	839.51
b ₈ -H ₂ O	907.44	907.49
b ₈	925.45	925.45
y ₉ -H ₃ PO ₄	957.54	957.64
b ₉ -H ₂ O	1020.52	1020.49
y ₉ -NH ₃ or b ₉	1038.49 or 1038.53	1038.64
b ₁₀ -NH ₃	1091.56	1091.85
b ₁₀ -H ₂ O	1092.54	1092.57
b ₁₀	1109.57	1109.63
y ₁₀ -H ₂ O	1151.55	1151.15
y ₁₀	1169.56	1169.48
a ₁₁	1194.66	1194.38
b ₁₁ -H ₂ O	1204.64	1204.61
b ₁₁	1222.65	1222.84
y ₁₁	1283.60	1283.58
y ₁₂ -H ₃ PO ₄	1299.67	1299.64

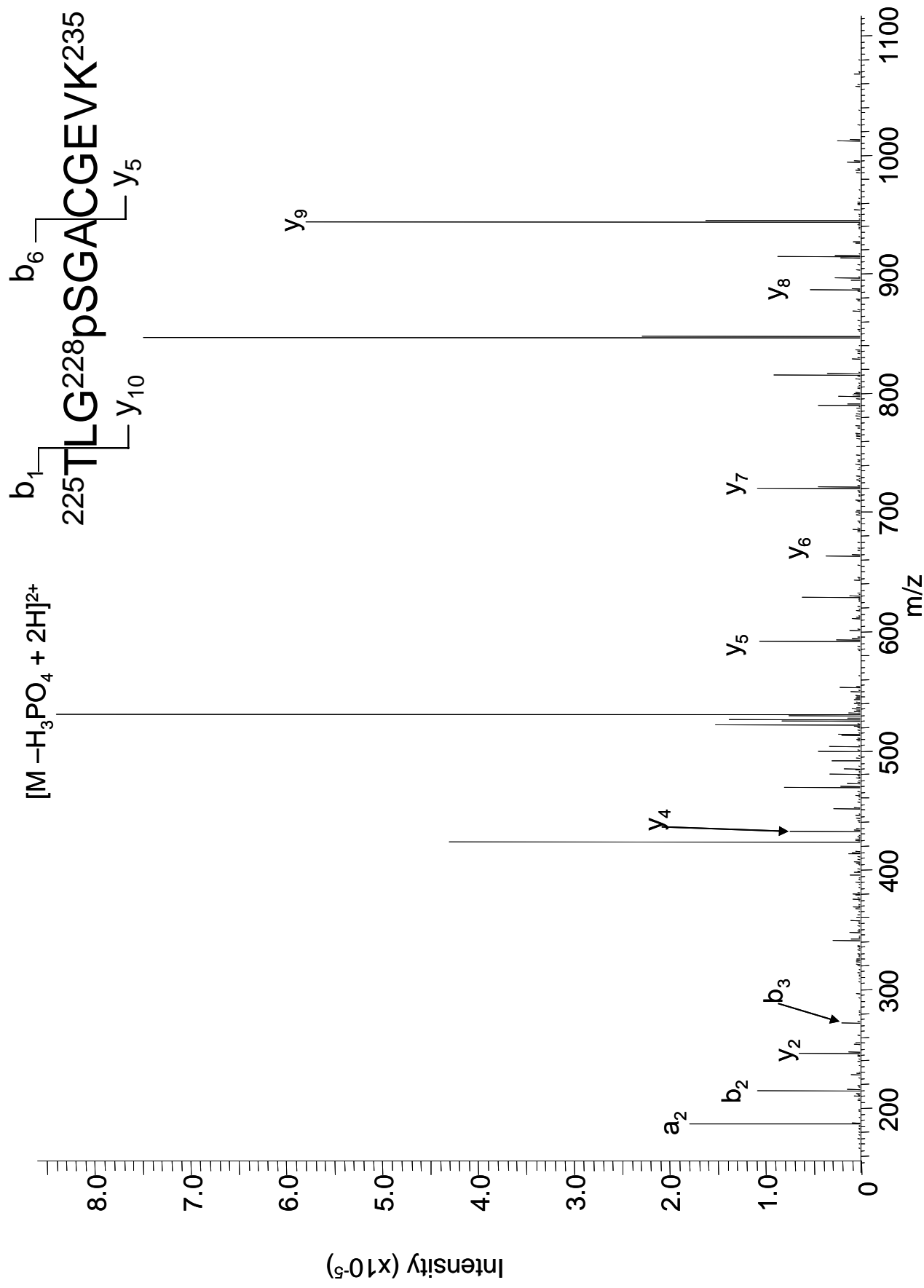
a_{12}	1361.66	1361.59
y_{12} -H ₂ O	1379.63	1379.62
y_{12} -NH ₃	1380.62	1380.77
b_{12}	1389.65	1389.85
y_{12}	1397.64	1397.65
b_{13} -H ₃ PO ₄	1404.76	1404.71
y_{13} -H ₃ PO ₄	1412.75	1412.67
a_{13}	1474.74	1474.64
b_{14} -H ₃ PO ₄	1491.79	1491.77
y_{13} -H ₂ O	1492.72	1492.79
y_{13} -NH ₃	1493.70	1493.78
b_{13} (pSLSR)	1502.74	1502.79
y_{13}	1510.73	1510.87
$[M-H_3PO_4+2H]^{+2}$	833.46	833.67



Supplemental Figure 4

Assigned ions for pTLGSGACGEVK

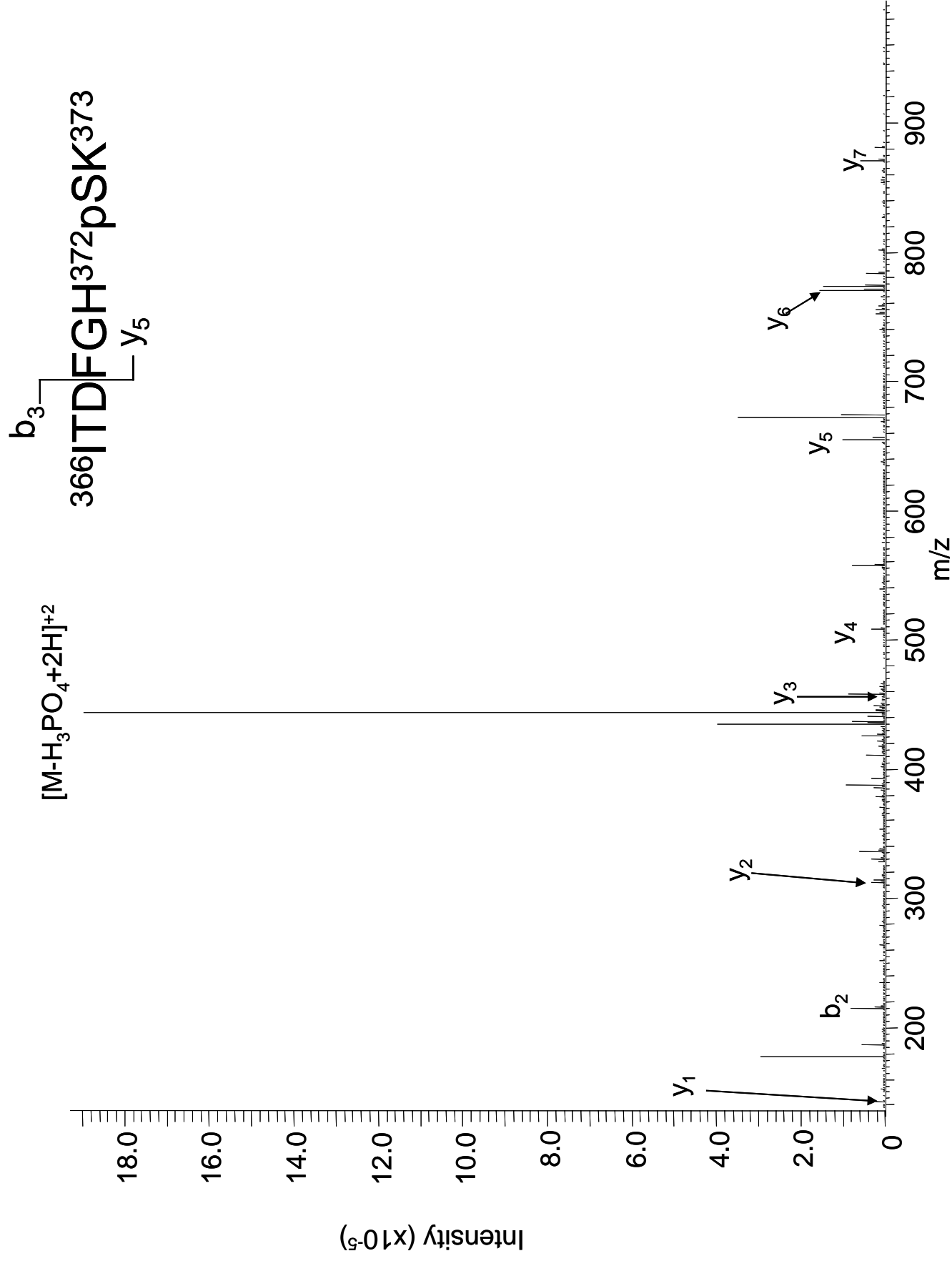
Ion	Theoretical m/z	Observed m/z
b ₂ -H ₃ PO ₄	197.13	197.17
y ₂ -NH ₃	229.16	229.28
y ₂	246.18	246.33
b ₃ -H ₃ PO ₄	254.15	254.22
b ₂	295.16	295.16
b ₄ -H ₃ PO ₄	341.18	341.29
b ₃	352.13	352.21
y ₃ -NH ₃	358.20	358.10
y ₃	375.22	375.34
b ₅ -H ₃ PO ₄	398.20	398.32
b ₄ -H ₂ O	421.15	421.33
y ₄	432.25	432.32
b ₄	439.16	439.25
b ₆ -H ₃ PO ₄	469.24	469.36
b ₅ -H ₂ O	478.17	478.37
b ₅	496.18	496.11
b ₆ -H ₂ O	549.21	549.98
y ₅	592.28	592.31
b ₇ -H ₃ PO ₄	629.27	629.23
y ₆	663.31	663.38
b ₈ -H ₃ PO ₄	686.29	686.37
y ₇	720.34	720.38
b ₇	727.25	727.02
y ₈ -H ₂ O	789.36	789.36
y ₈	807.37	807.34
b ₉ -H ₃ PO ₄	815.34	815.35
y ₉ -H ₂ O	847.36	847.55
y ₉ -NH ₃	864.39	864.35
b ₉ -H ₂ O	895.30	895.23
b ₉	913.31	913.23
b ₁₀ -H ₃ PO ₄	914.40	914.42
y ₁₀	977.47	977.45
b ₁₀ -H ₂ O	994.37	994.37
b ₁₀	1012.37	1012.14
[M-H ₃ PO ₄ +2H] ⁺²	530.76	530.97



Supplemental Figure 5

Assigned ions for TLGpSGACGEVK

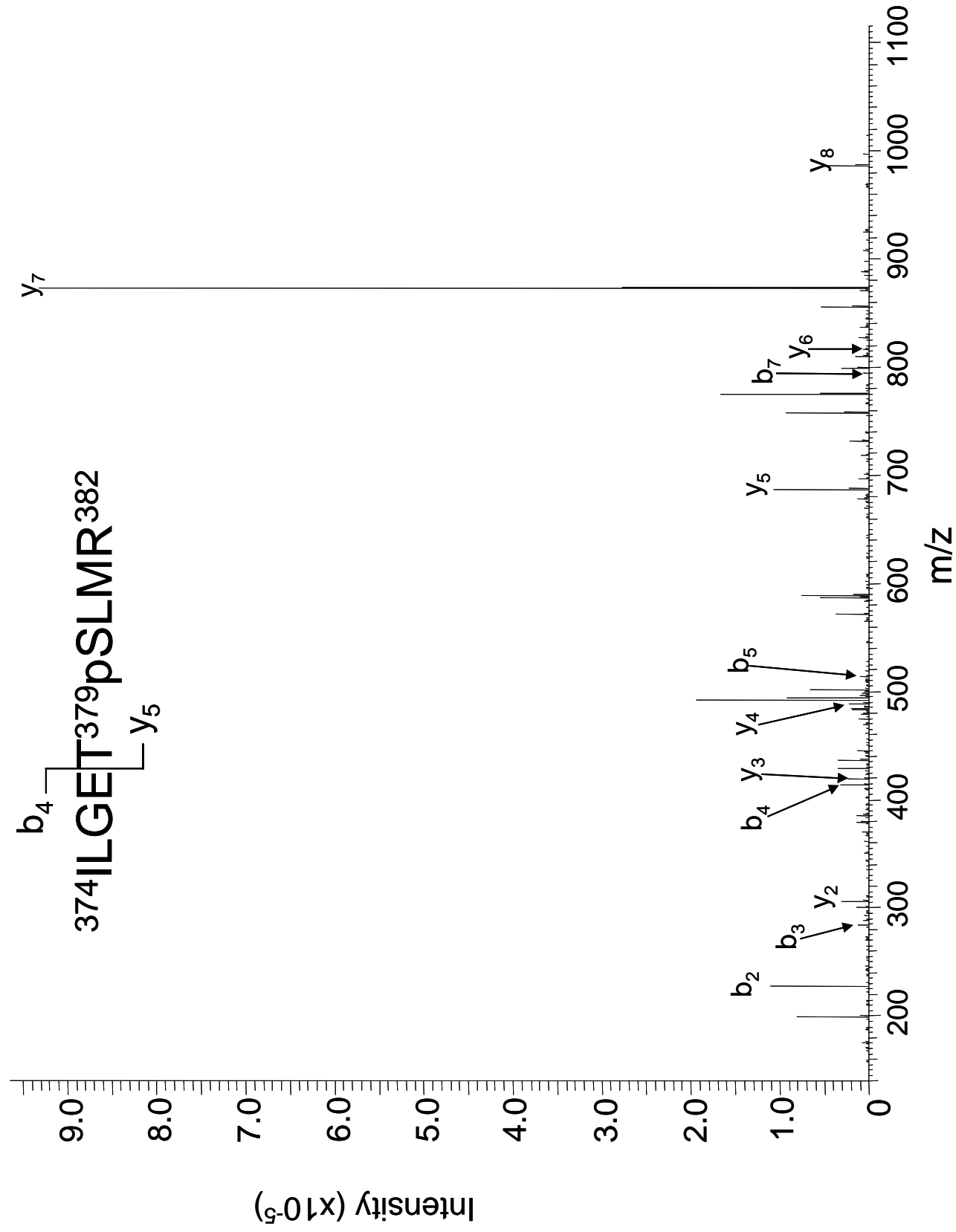
Ion	Theoretical m/z	Observed m/z
b ₂	215.14	215.10
y ₂	246.18	246.26
b ₃	272.16	272.21
b ₄ -H ₃ PO ₄	341.18	341.20
b ₅ -H ₃ PO ₄	398.20	398.39
y ₄	432.25	432.29
b ₆ -H ₃ PO ₄	469.24	469.31
b ₆ -H ₂ O	549.21	549.22
b ₇ -H ₃ PO ₄	629.27	629.36
y ₆	663.31	663.42
y ₇	720.34	720.36
y ₈ -H ₃ PO ₄	789.36	789.35
b ₉ -H ₃ PO ₄	815.34	815.31
y ₉ -H ₃ PO ₄	846.38	846.39
y ₈	887.33	887.31
b ₉ -H ₂ O	895.30	895.32
b ₉	913.31	913.26
b ₁₀ -H ₃ PO ₄	914.40	914.36
y ₉	944.35	944.33
b ₁₀ -H ₂ O	994.37	994.26
b ₁₀	1012.38	1012.34
[M-H ₃ PO ₄ +2H] ⁺²	530.76	530.96



Supplemental Figure 6

Assigned ions for ITDFGHpSK

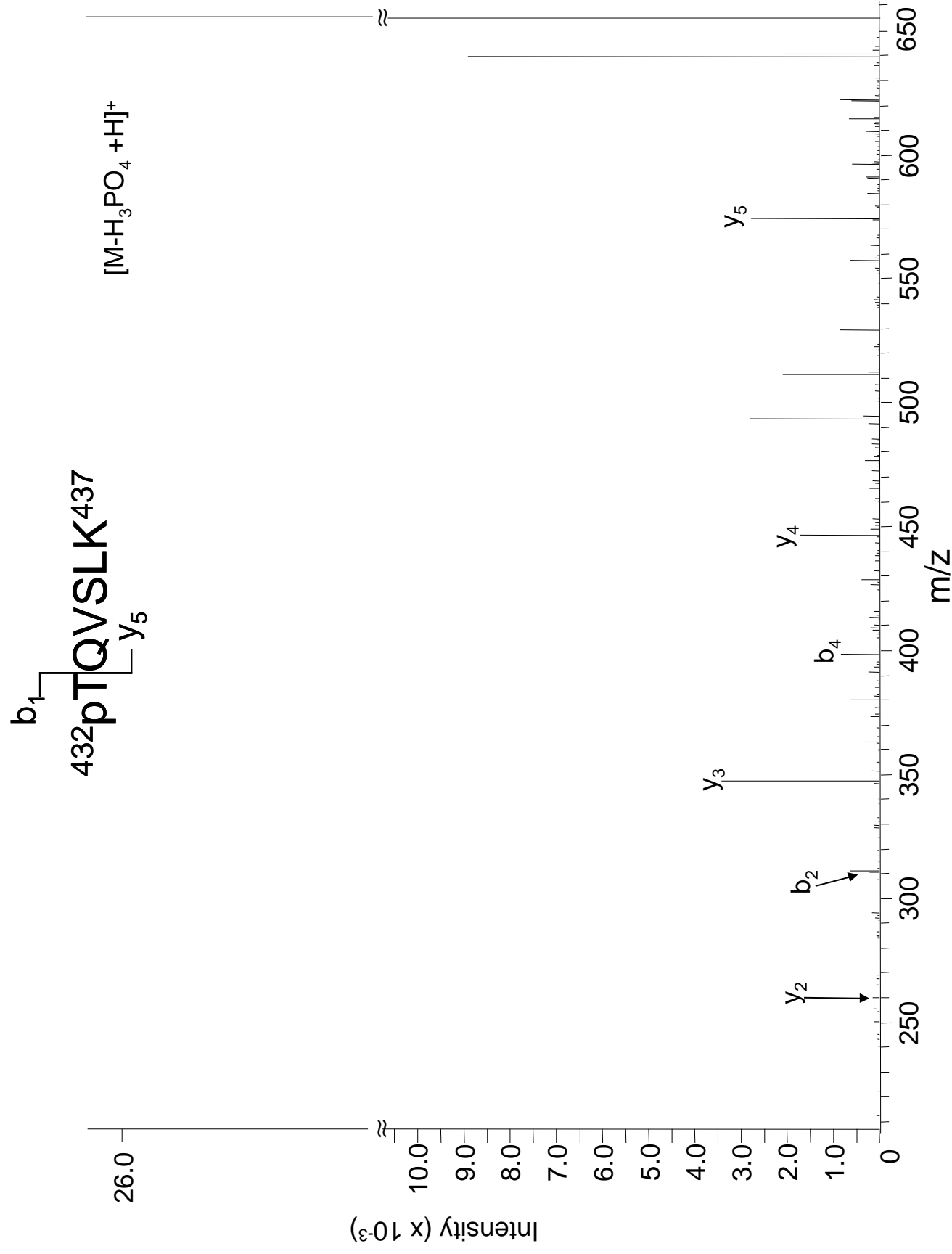
Ion	Theoretical m/z	Observed m/z
y ₁	147.11	147.16
a ₂	187.14	187.14
b ₂	215.14	215.10
y ₂ -H ₃ PO ₄	216.13	216.08
b ₃ -H ₂ O	312.16	312.26
y ₂	314.11	314.25
b ₃	330.17	330.21
y ₃ -H ₃ PO ₄	353.19	353.22
y ₄ -H ₃ PO ₄	410.22	410.39
y ₃ -NH ₃	434.14	434.93
a ₄	449.24	449.25
y ₃	451.17	451.48
y ₄	508.19	508.32
b ₅	534.26	534.40
y ₅ -H ₃ PO ₄	557.28	557.34
y ₅	655.26	655.32
b ₆	671.32	671.49
y ₆ -H ₃ PO ₄	672.37	372.31
b ₇ -H ₃ PO ₄	740.34	743.37
y ₆ -NH ₃	753.26	753.31
y ₆	770.29	770.32
y ₇ -H ₃ PO ₄	773.36	773.42
b ₇	838.31	838.54
y ₇	871.34	871.33
[M-H ₃ PO ₄ + 2H] ⁺²	443.97	443.93



Supplemental Figure 7

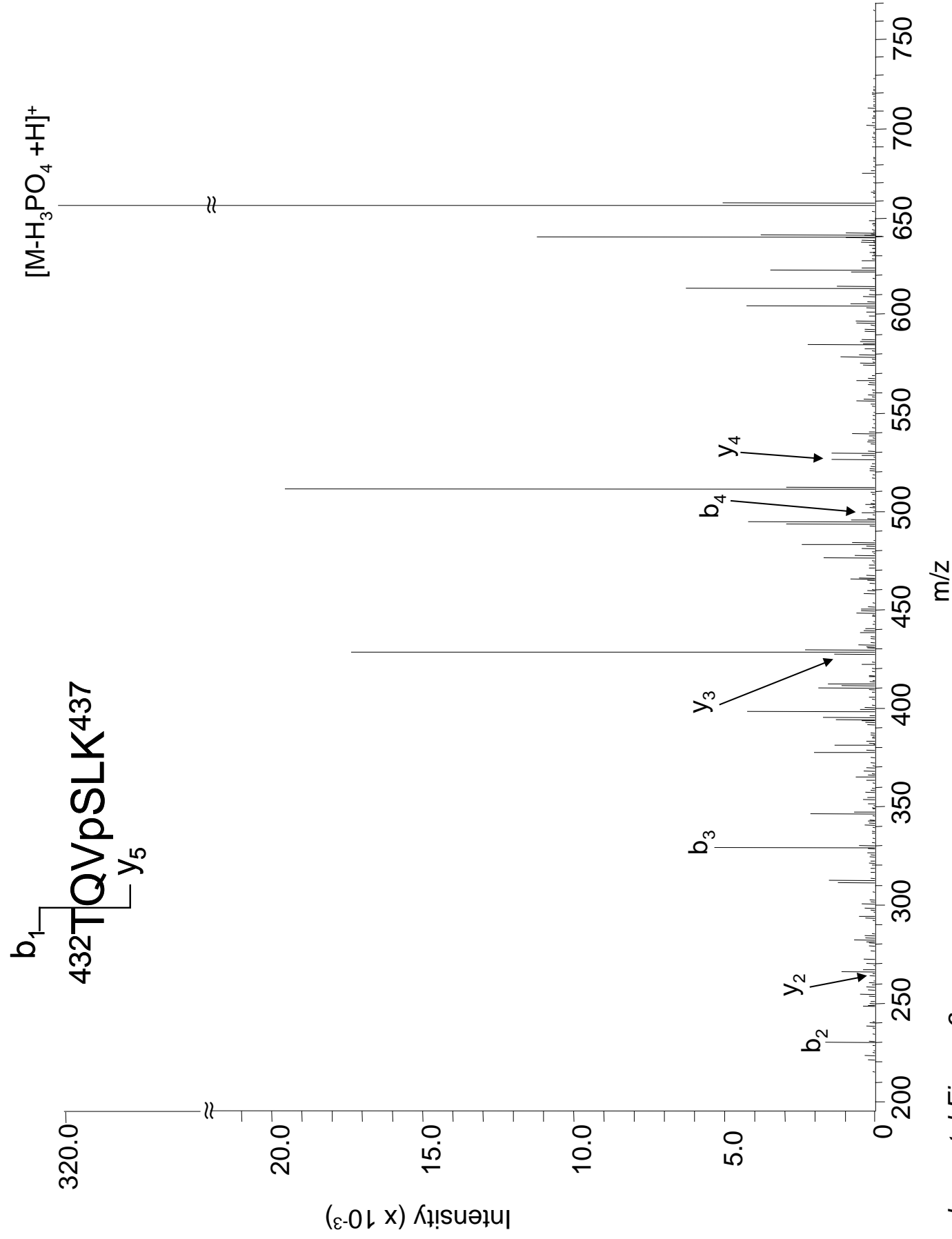
Assigned ions for ILGETpSLMR

Ion	Theoretical m/z	Observed m/z
y ₁	175.12	175.20
b ₂	227.18	227.07
b ₃	284.20	284.36
y ₂	306.16	306.27
b ₄	413.24	413.33
y ₃	419.24	419.37
y ₄ -H ₃ PO ₄	488.27	488.35
b ₅ -H ₂ O	496.28	496.32
b ₅	514.29	514.18
b ₆ -H ₃ PO ₄	583.31	583.46
y ₄	586.24	586.29
y ₅ -H ₃ PO ₄	589.31	589.35
y ₅	687.29	687.33
b ₇ -H ₃ PO ₄	696.39	696.24
y ₆ -H ₃ PO ₄	718.36	718.63
y ₇ -H ₃ PO ₄	775.38	775.45
b ₇ -H ₂ O	776.36	776.47
b ₇	794.37	794.48
y ₆ -H ₂ O	798.32	798.44
y ₆ -NH ₃	799.31	799.28
y ₆	816.33	816.53
b ₈ -H ₃ PO ₄	827.43	827.42
y ₇ -H ₂ O	855.46	855.46
y ₇	873.35	873.39
y ₈ -H ₃ PO ₄	888.46	888.53
b ₈ -H ₂ O	907.40	907.52
y ₈ -H ₂ O	968.43	968.46
y ₈	986.44	986.47
[M-H ₃ PO ₄ + 2H] ⁺²	501.27	501.32



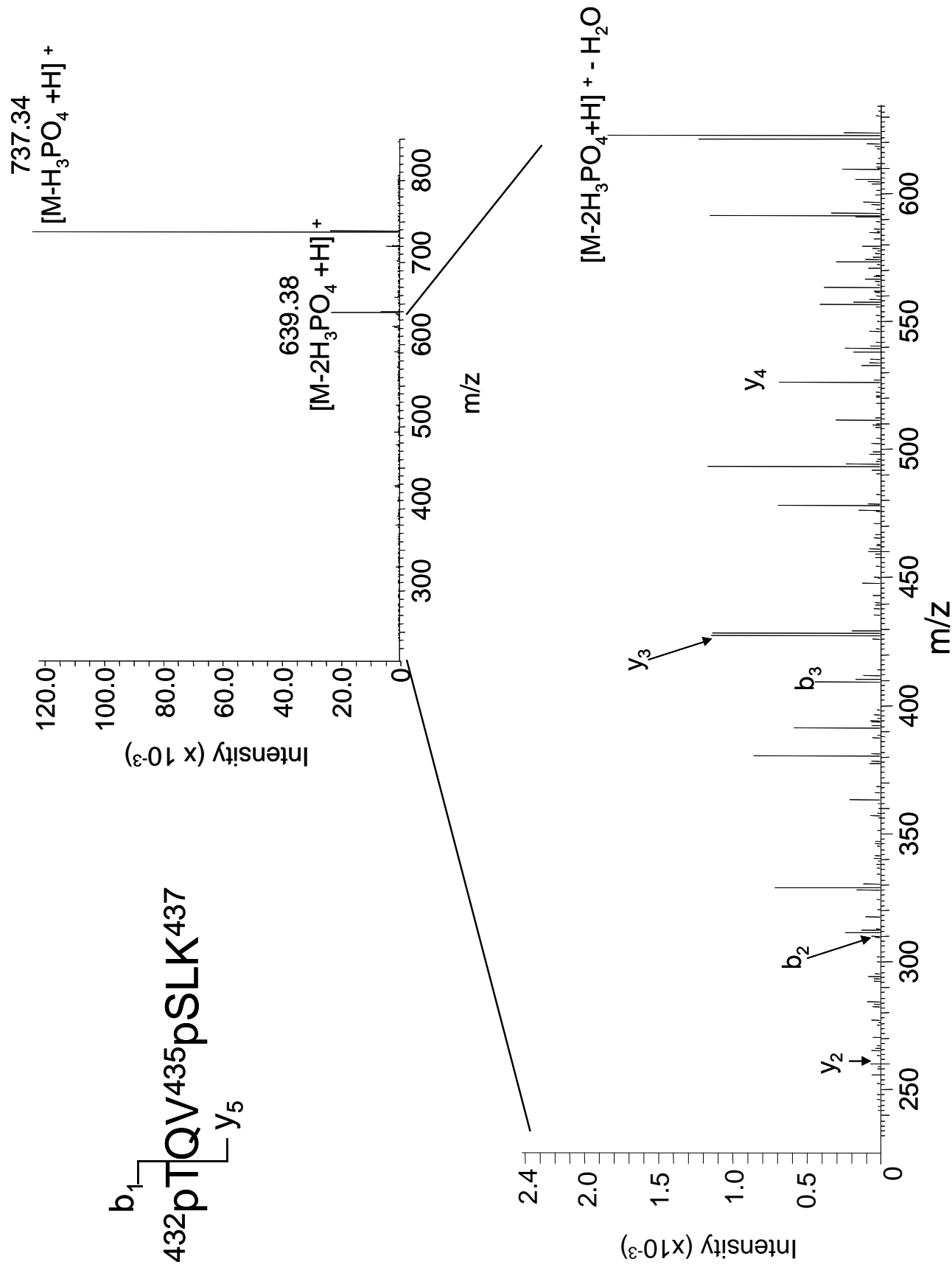
Assigned ions for pTQVSLK

Ion	Theoretical m/z	Observed m/z
b ₂ -H ₃ PO ₄	212.10	212.23
y ₂	260.20	260.17
b ₂ -NH ₃	293.05	293.31
b ₂	310.08	310.35
b ₃ -H ₃ PO ₄	311.17	311.33
y ₃ -H ₂ O	329.22	329.35
y ₃	347.23	347.45
b ₄ -H ₃ PO ₄	398.20	398.38
b ₃	409.15	409.15
y ₄ -H ₂ O	428.29	428.36
y ₄	446.30	446.49
b ₄ -H ₂ O	478.17	478.09
b ₅ -H ₃ PO ₄	511.29	511.37
y ₅ -H ₂ O	556.35	556.44
y ₅ -NH ₃	557.33	557.48
y ₅	574.36	574.52
b ₅ -H ₂ O	591.25	591.27
b ₅	609.26	609.39
[M-H ₃ PO ₄ +H] ⁺	657.39	657.40



Assigned ions for TQVpSLK.

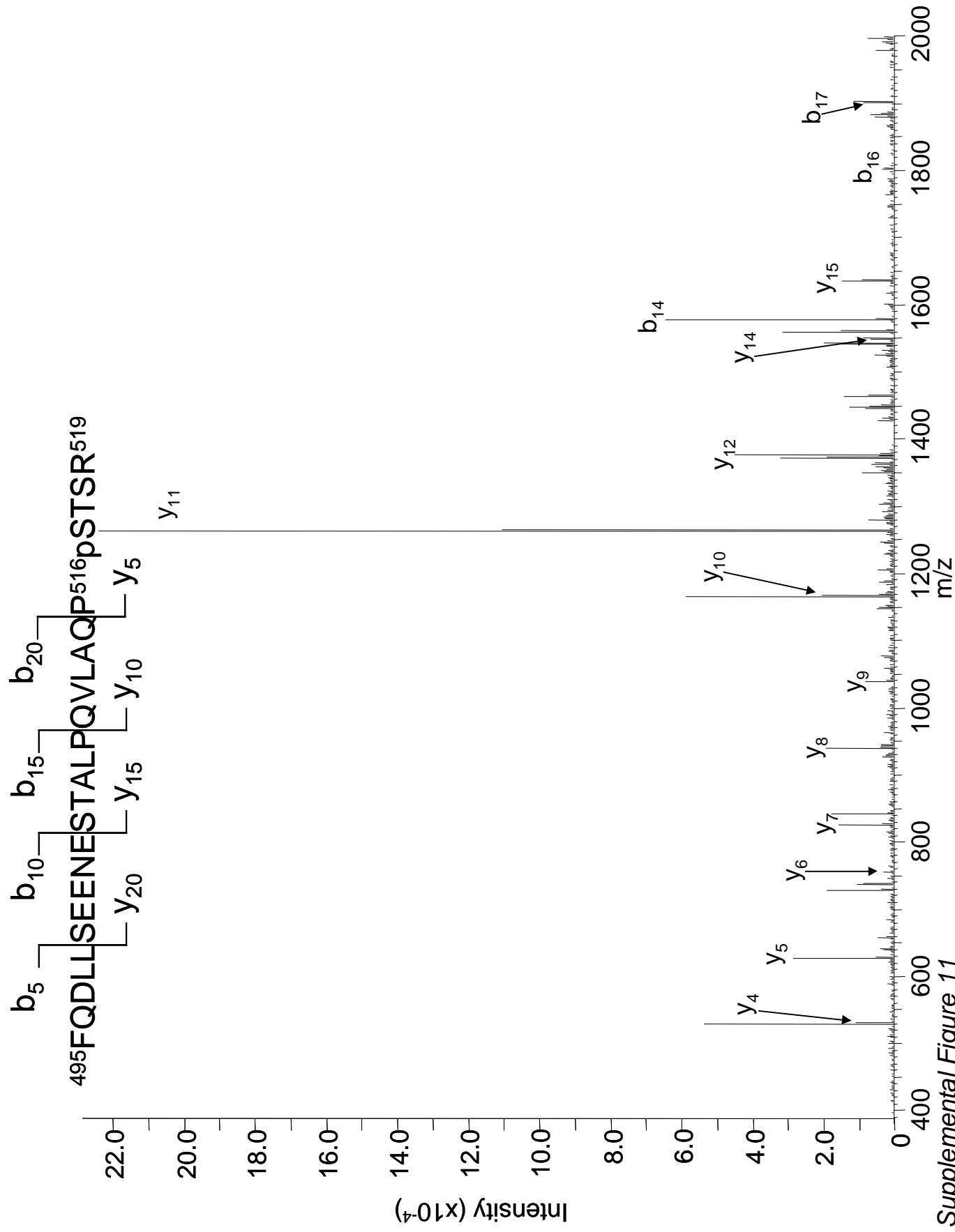
Ion	Theoretical m/z	Observed m/z
b ₂	230.11	230.14
b ₃ -H ₂ O	311.17	311.33
b ₃ -NH ₃	312.16	312.39
b ₃ or y ₃ -H ₃ PO ₄	329.18 or 329.22	329.26
b ₄ -H ₃ PO ₄	398.20	398.24
y ₃ -NH ₃	410.17	410.46
y ₃	427.20	427.33
y ₄ -H ₃ PO ₄	428.29	428.39
b ₄	496.18	496.26
b ₅ -H ₃ PO ₄	511.29	511.36
y ₄	526.26	526.39
y ₅ -H ₃ PO ₄	556.35	556.17
b ₅ -H ₂ O	591.25	591.42
b ₅ -NH ₃	592.24	592.50
b ₅	609.26	609.29
y ₅ -NH ₃	637.50	637.50
y ₅	654.32	654.32
[M-H ₃ PO ₄ +H] ⁺	657.39	657.39



Supplemental Figure 10

Assigned ions for pTQVpSLK.

Ion	Theoretical m/z	Observed m/z
y ₂	260.20	260.25
b ₂	310.08	310.46
b ₃	409.15	409.27
y ₃ -NH ₃	410.17	410.33
y ₃	427.20	427.23
y ₄	526.26	526.31
b ₄ -NH ₃	559.12	559.66
b ₄	576.15	576.39
y ₅	654.32	654.56
b ₅	689.23	689.34
[M-H ₃ PO ₄ + H] ⁺	737.36	737.39
[M-2H ₃ PO ₄ + H] ⁺	639.38	639.38

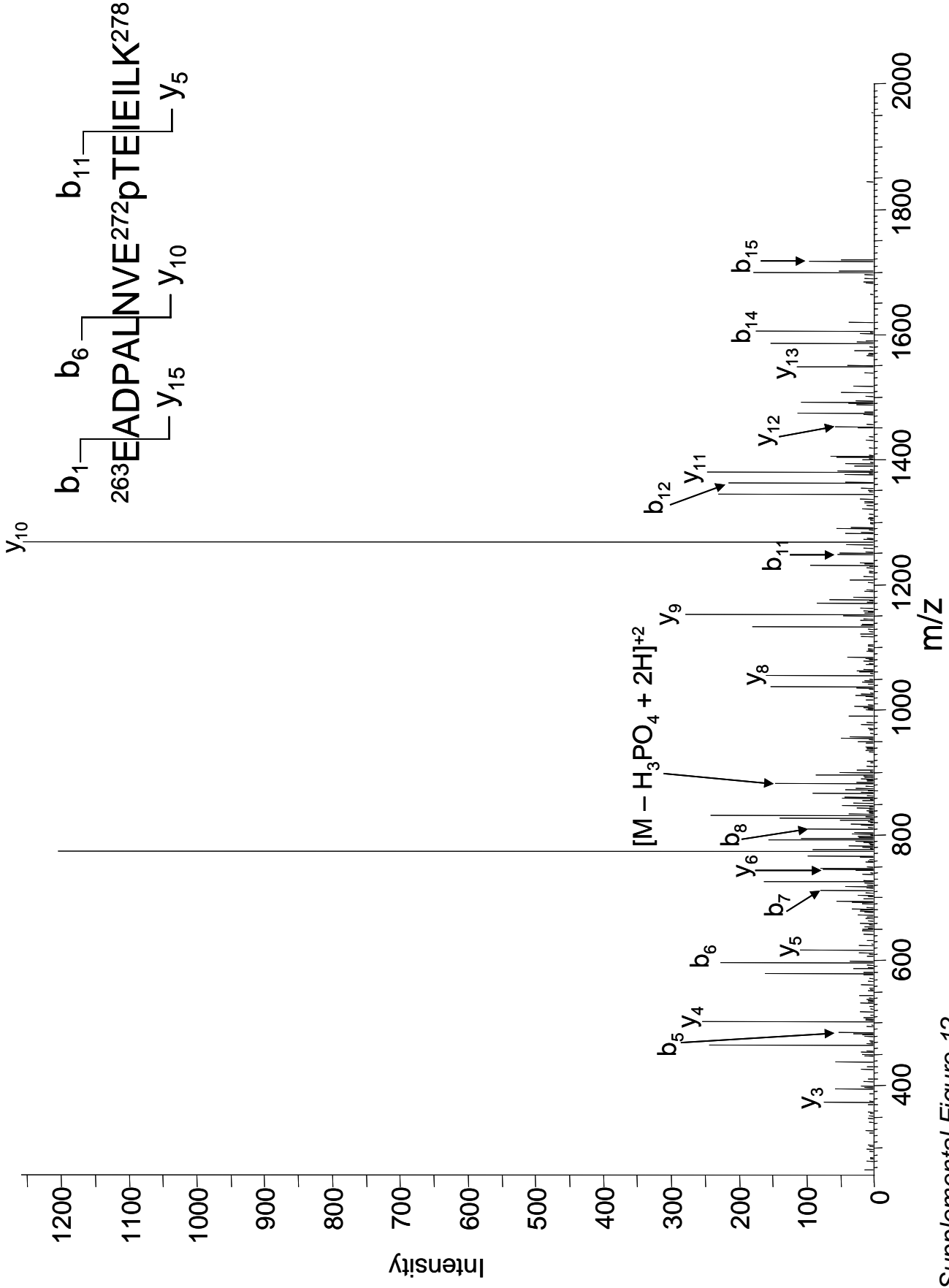


Supplemental Figure 11

Assigned ions for FQDLLSEENESTALPQVLAQPpSTSR (Note: This phosphorylation site assignment was confirmed by a separate analysis on the Q-TOF as described in the 'Experimental Section')

Ion	Theoretical m/z	Observed m/z
y ₄ -H ₃ PO ₄	432.22	432.40
a ₄	476.25	476.47
y ₄ -H ₂ O	512.19	512.50
y ₅ -H ₃ PO ₄	529.27	529.35
y ₄	530.20	530.12
y ₅ -H ₂ O	609.24	609.58
y ₅ -NH ₃	610.22	610.28
b ₅	617.33	617.28
y ₅	627.25	627.26
y ₆ -H ₃ PO ₄	657.33	657.41
y ₇ -H ₃ PO ₄	728.37	728.53
y ₆ -H ₂ O	737.30	737.38
y ₆ -NH ₃	738.28	738.39
y ₆	755.31	755.46
b ₇ -H ₂ O	815.39	815.62
y ₇	826.35	826.37
b ₇	833.40	833.43
y ₈ -H ₃ PO ₄	841.45	841.45
y ₈ -H ₂ O	921.42	921.61
y ₈ -NH ₃	922.40	922.83
y ₈	939.43	939.84
y ₉ -H ₃ PO ₄	940.52	940.52
y ₉	1038.50	1038.50
b ₉	1076.49	1076.64
y ₁₀ -H ₂ O	1148.49	1148.50
y ₁₀ -NH ₃	1149.53	1149.60
y ₁₁ -H ₃ PO ₄	1165.63	1165.69
y ₁₀	1166.56	1166.64
b ₁₀ -H ₂ O	1187.52	1187.35
b ₁₀ -NH ₃	1188.51	1188.51
b ₁₀	1205.53	1205.53
y ₁₁ -H ₂ O	1245.60	1245.45
y ₁₁ -NH ₃	1246.58	1246.53
y ₁₁	1263.61	1263.54
a ₁₁	1264.57	1264.58
y ₁₂ -H ₃ PO ₄	1278.72	1278.69
b ₁₁	1292.56	1292.56
y ₁₃ -H ₃ PO ₄	1349.75	1375.86
y ₁₂ -H ₂ O	1358.68	1358.37
y ₁₂	1376.69	1376.65
y ₁₃ -H ₂ O	1429.54	1429.72

$y_{13}\text{-NH}_3$	1430.70	1430.72
$b_{13}\text{-H}_2\text{O}$	1446.64	1446.59
y_{13} or $b_{13}\text{-NH}_3$	1447.73 or 1447.62	1447.55
$y_{15}\text{-H}_3\text{PO}_4$	1537.83	1537.80
y_{14}	1548.78	1548.76
a_{14}	1549.74	1549.80
$b_{14}\text{-H}_2\text{O}$	1559.72	1559.64
$b_{14}\text{-NH}_3$	1560.71	1560.56
b_{14}	1577.73	1577.58
y_{15}	1635.81	1635.77
b_{15}	1674.79	1674.55
$y_{16}\text{-H}_2\text{O}$	1746.84	1746.69
$y_{16}\text{-NH}_3$	1747.83	1747.45
y_{16}	1764.85	1764.80
$y_{17}\text{-H}_3\text{PO}_4$	1780.92	1780.47
$b_{16}\text{-H}_2\text{O}$	1784.83	1784.47
$b_{16}\text{-NH}_3$	1785.82	1785.65
b_{16}	1802.84	1802.70
a_{17}	1873.92	1873.82
$b_{17}\text{-H}_2\text{O}$	1883.90	1883.95
b_{17}	1901.91	1901.78



Supplemental Figure 12

Assigned ions for EADPALNVEpTEIEILK

Ion	Theoretical m/z	Observed m/z
y ₂	260.20	260.32
b ₃	316.11	316.06
y ₃ -NH ₃	356.25	356.23
y ₃	373.28	373.51
b ₅	484.20	484.08
y ₄	502.32	502.44
b ₆	597.29	597.31
y ₅ -NH ₃	598.39	598.07
y ₅	615.41	615.50
b ₇	711.33	711.33
y ₆ -NH ₃	727.42	727.38
y ₆	744.48	744.48
b ₈	810.40	810.49
y ₇ -H ₃ PO ₄	827.49	827.48
y ₈ -H ₃ PO ₄	956.53	956.58
y ₈	1054.51	1054.57
y ₉ -H ₃ PO ₄	1055.60	1055.52
y ₉	1153.58	1153.72
y ₁₀ -H ₃ PO ₄	1169.64	1169.62
b ₁₁	1249.50	1249.33
y ₁₀ -NH ₃	1250.59	1250.84
b ₁₂ -H ₃ PO ₄	1264.61	1264.60
y ₁₀	1267.62	1267.48
y ₁₁ -H ₃ PO ₄	1282.73	1282.63
b ₁₂	1362.58	1362.38
y ₁₁ -NH ₃	1363.68	1363.59
y ₁₁	1380.70	1380.76
b ₁₃ -H ₃ PO ₄	1393.65	1393.27
y ₁₂	1451.74	1451.86
b ₁₃	1491.63	1491.40
b ₁₄ -H ₃ PO ₄	1506.73	1506.62
y ₁₃	1548.79	1548.43
b ₁₄	1604.71	1604.55
y ₁₄	1663.82	1663.57
b ₁₅ or y ₁₅ -NH ₃	1717.79 or 1717.89	1717.87