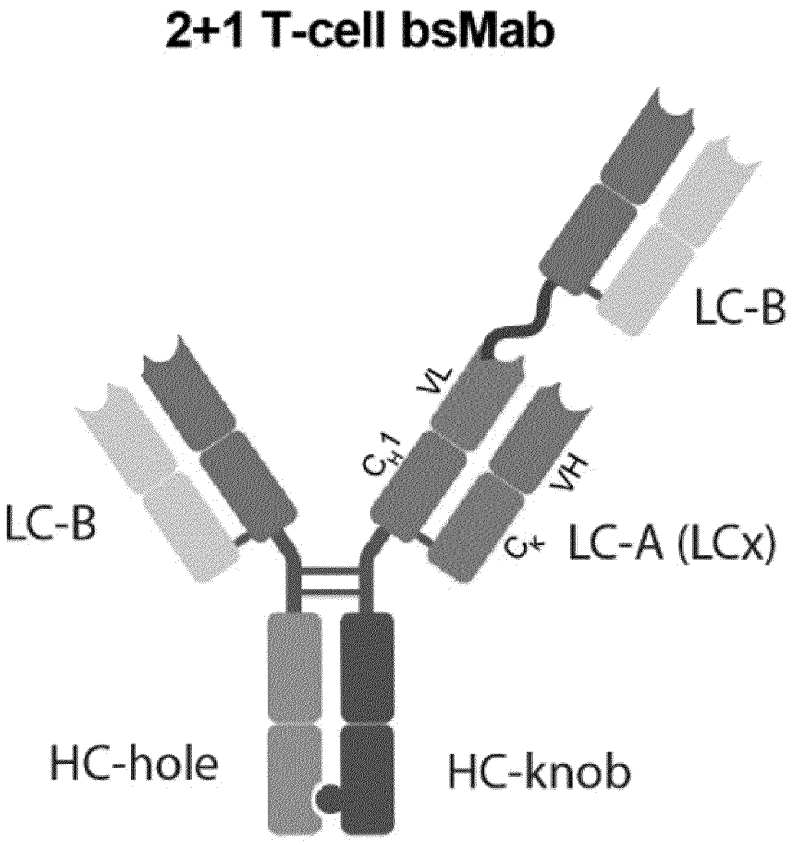


Figure 1A

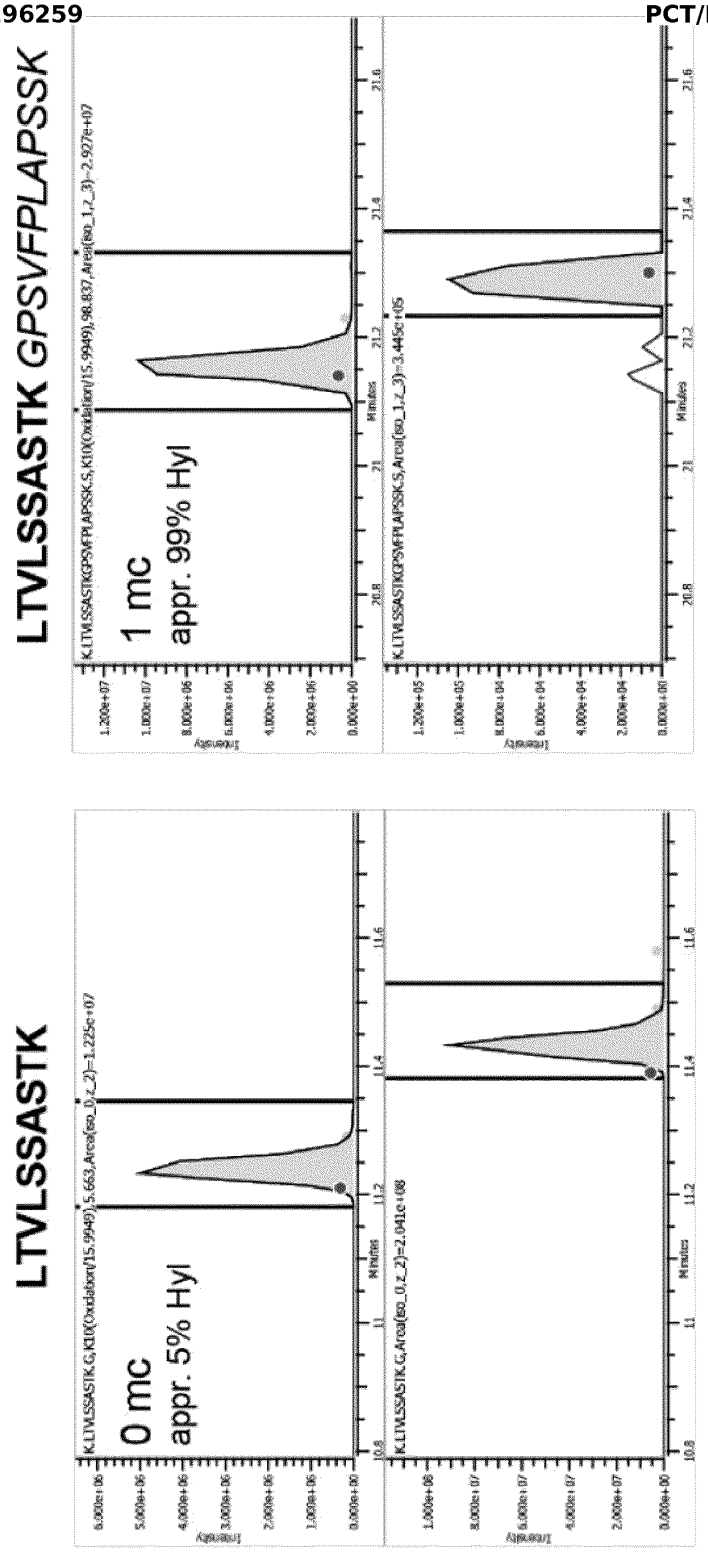

LTVLSSASTK
0 mc
appr. 5% Hyl
LTVLSSASTK GPSVFPLAPSSK
1 mc
appr. 99% Hyl
Minutes

Figure 1B

LTVLSSASTK

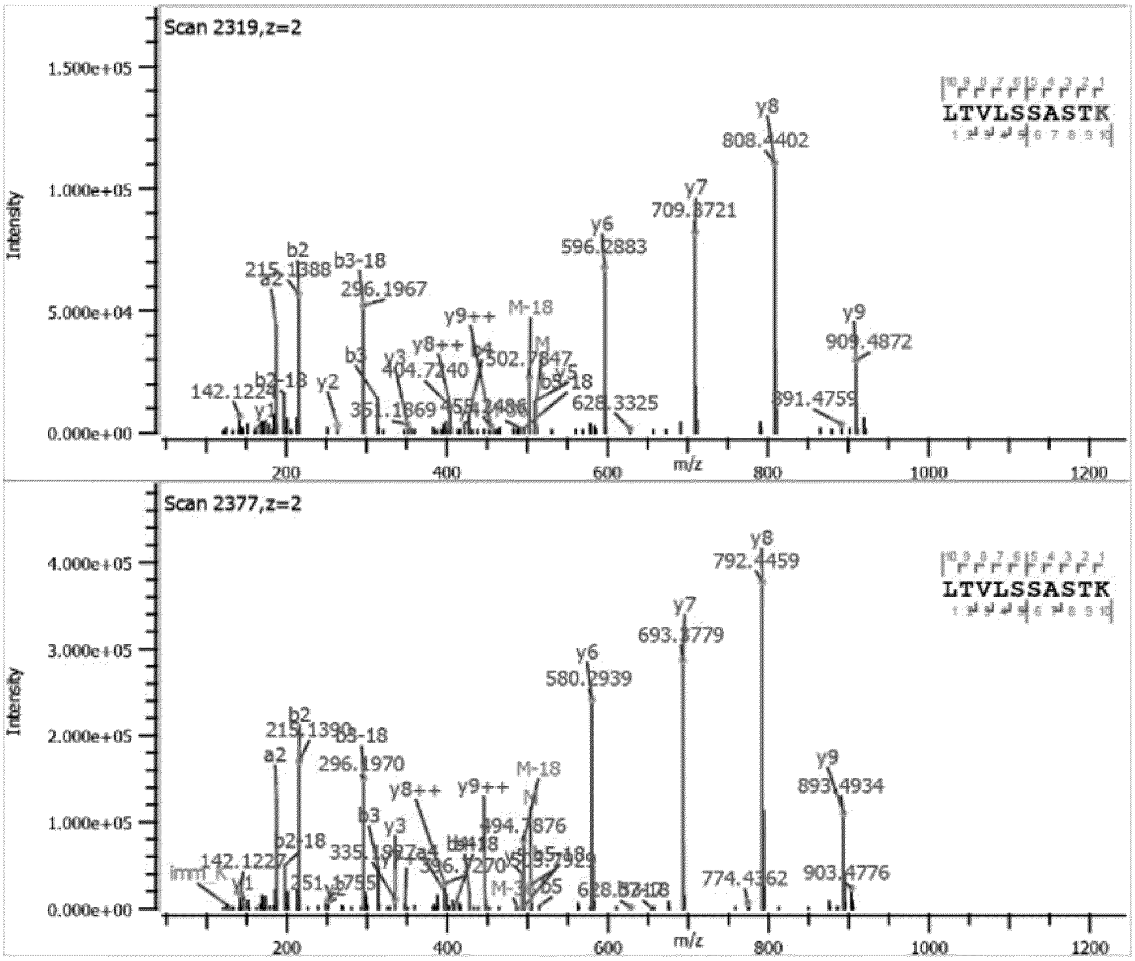


Figure 1C

LTVLSSASTK

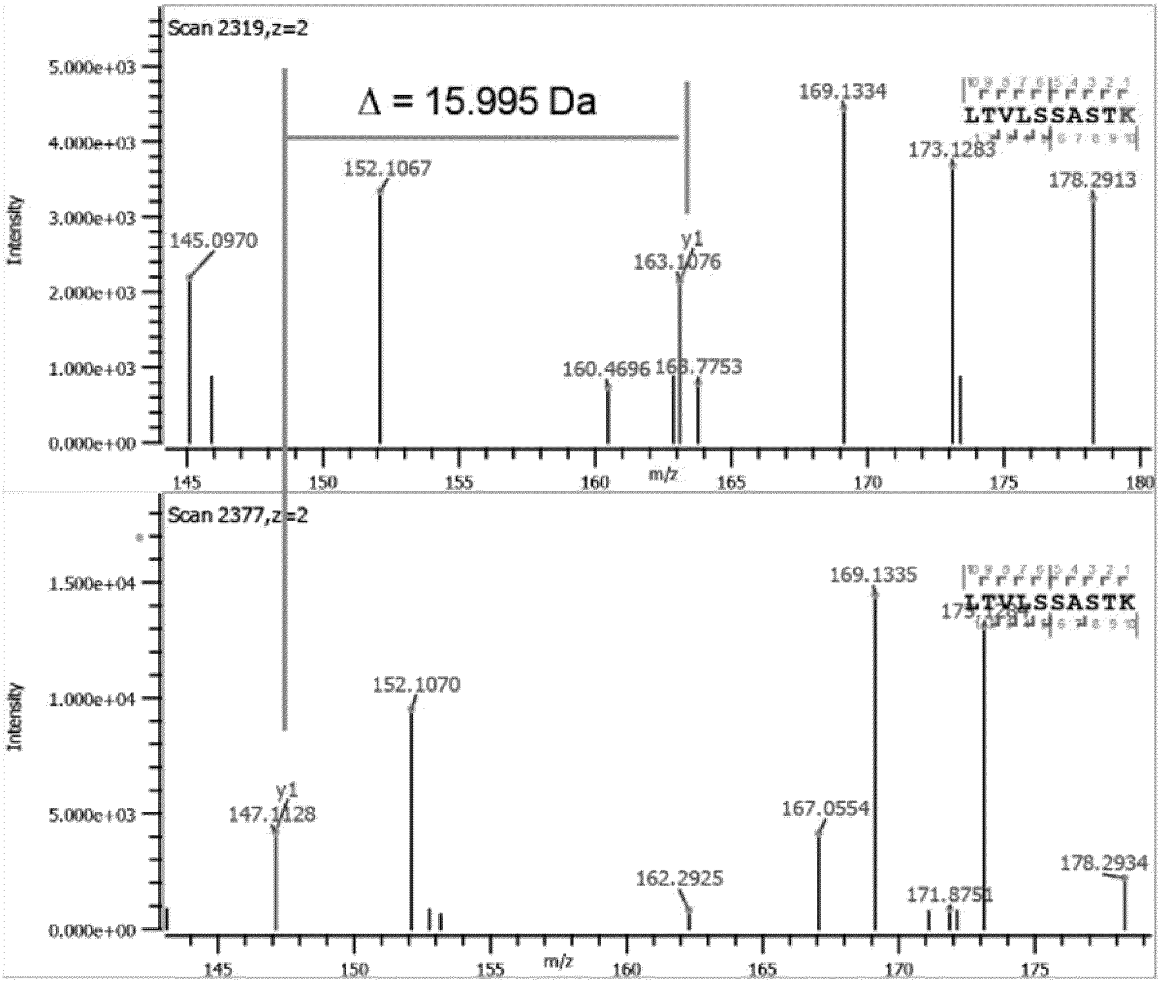


Figure 1D

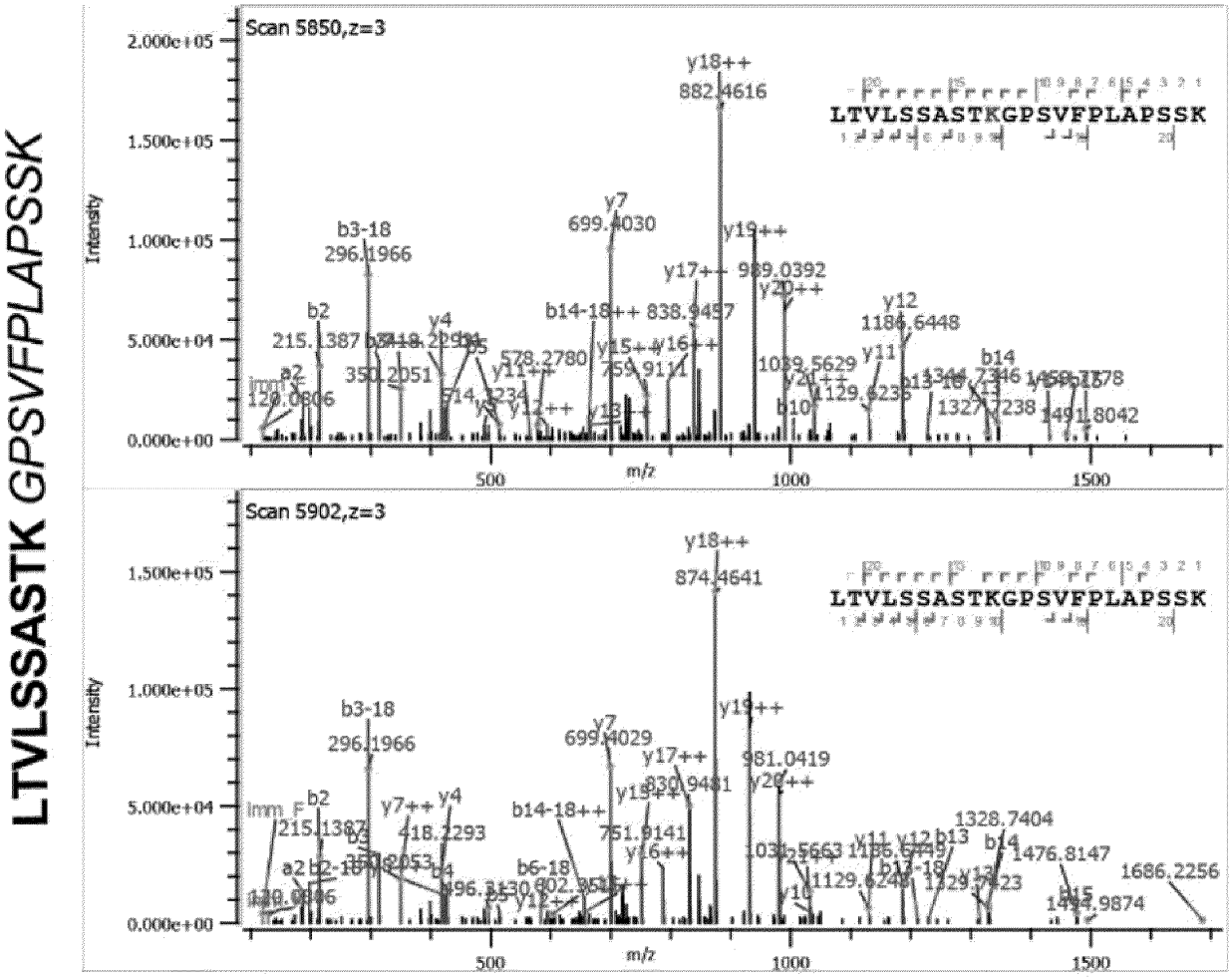

LTVLSSASTK GPSVFPLAPSSK
Scan 5850,z=3
Intensity
m/z
LTVLSSASTKGPSVFPLAPSSK
y18++
882.4616
y7
699.4030
b3-18
296.1966
y19++
y17++ 989.0392
y20++
b14-18++ 838.9457
y12
1186.6448
b2
215.1387
y4
418.2293
y15++
y16++
578.2780
759.9111
y11
b14
1039.5629
1344.7346
1491.8042
Scan 5902,z=3
y18++
874.4641
y19++
y7
699.4029
b3-18
296.1966
y17++
981.0419
830.9481
y20++
b2
215.1387
y7++
y4
418.2293
b14-18++
751.9141
y16++
1328.7404
b14
1476.8147
1686.2256
1129.6248
1491.9874

Figure 1E

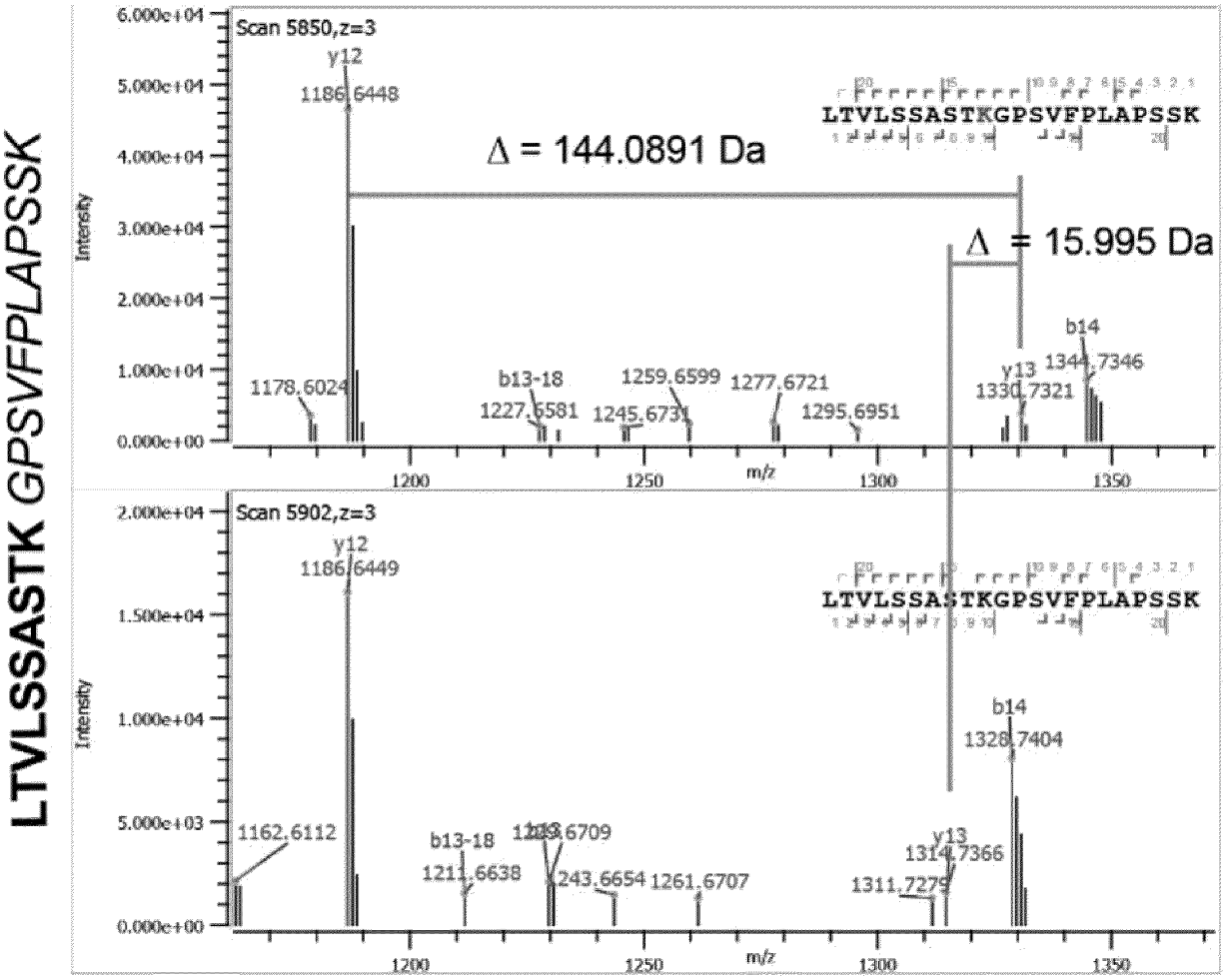

LTVLSSASTK GPSVFPLAPSSK
Scan 5850,z=3
y12
1186.6448
Δ = 144.0891 Da
Δ = 15.995 Da
LTVLSSASTKGPSVFPLAPSSK
b14
1344.7346
y13
1330.7321
b13-18
1227.6581
1178.6024
1245.6731
1259.6599
1277.6721
1295.6951
Intensity
m/z
Scan 5902,z=3
y12
1186.6449
LTVLSSASTKGPSVFPLAPSSK
b14
1328.7404
1162.6112
b13-18
1211.6638
1243.6654
1261.6707
y13
1314.7366
1311.7279

Figure 1F

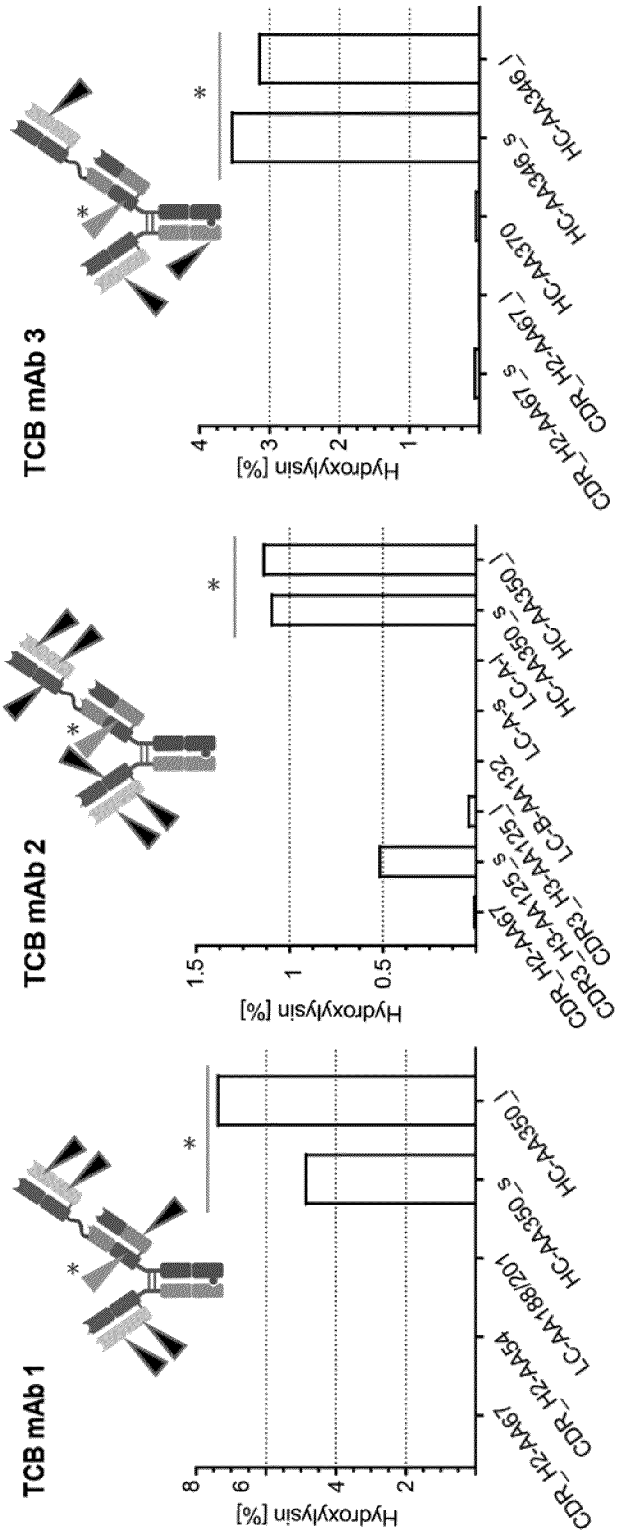

TCB mAb 1
Hydroxylysin [%]
CDR_H2-AA67
CDR_H2-AA54
LC-AA188/201
HC-AA350_s
HC-AA350_l
TCB mAb 2
Hydroxylysin [%]
CDR_H2-AA67
CDR3_H3-AA125_s
CDR3_H3-AA125_l
LC-B-AA132
LC-A-s
LC-A-l
HC-AA350_s
HC-AA350_l
TCB mAb 3
Hydroxylysin [%]
CDR_H2-AA67_s
CDR_H2-AA67_l
HC-AA370
HC-AA346_s
HC-AA346_l

Figure 1G

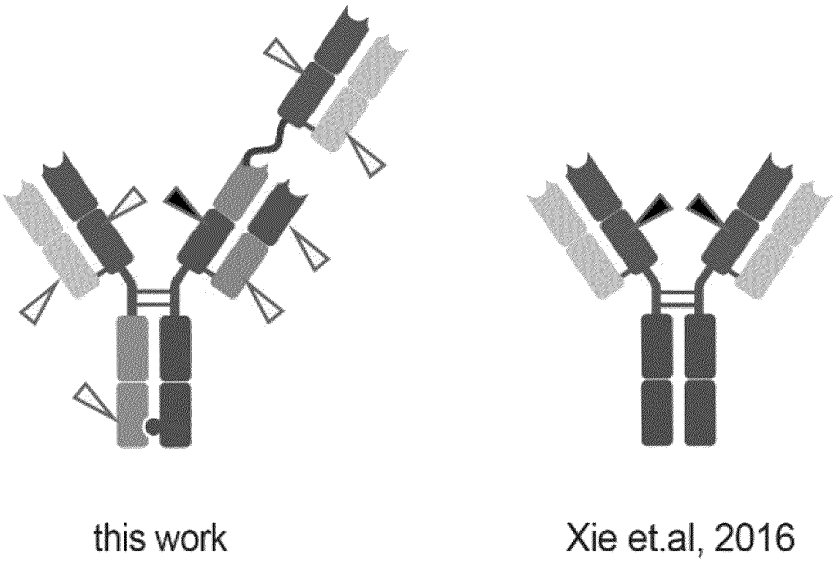


Figure 2A

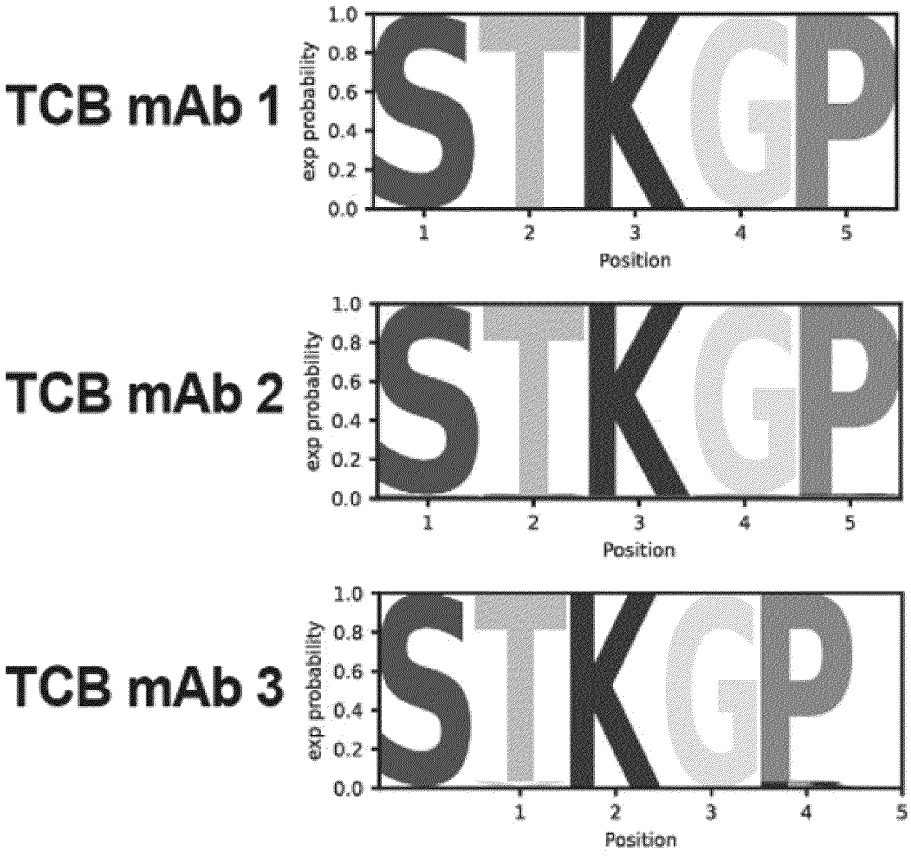


Figure 2B

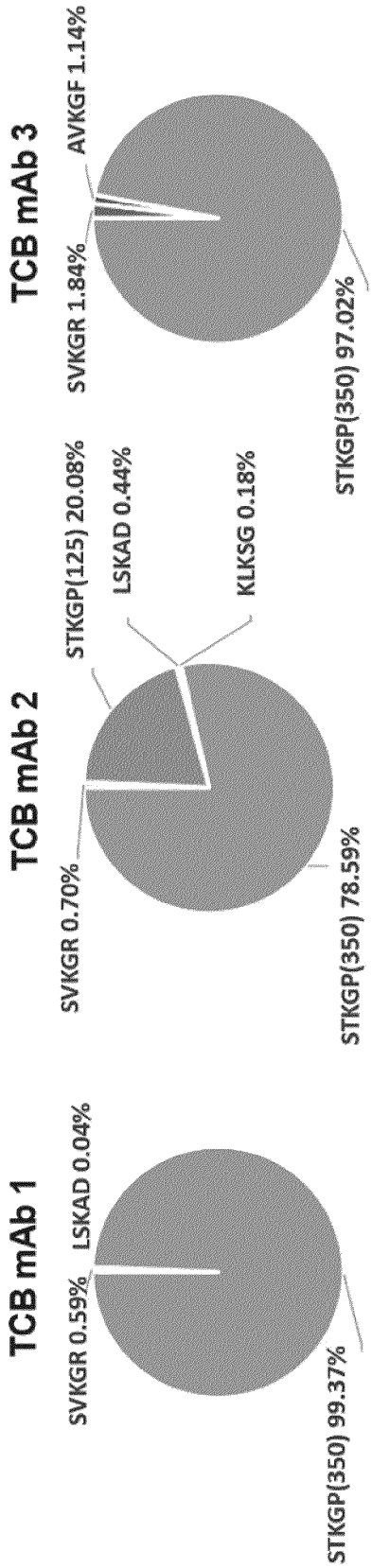

TCB mAb 3
AVKGF 1.14%
SVKGR 1.84%
STKGP(350) 97.02%
TCB mAb 2
STKGP(125) 20.08%
LSKAD 0.44%
KLKSG 0.18%
SVKGR 0.70%
STKGP(350) 78.59%
TCB mAb 1
LSKAD 0.04%
SVKGR 0.59%
STKGP(350) 99.37%

Figure 2C

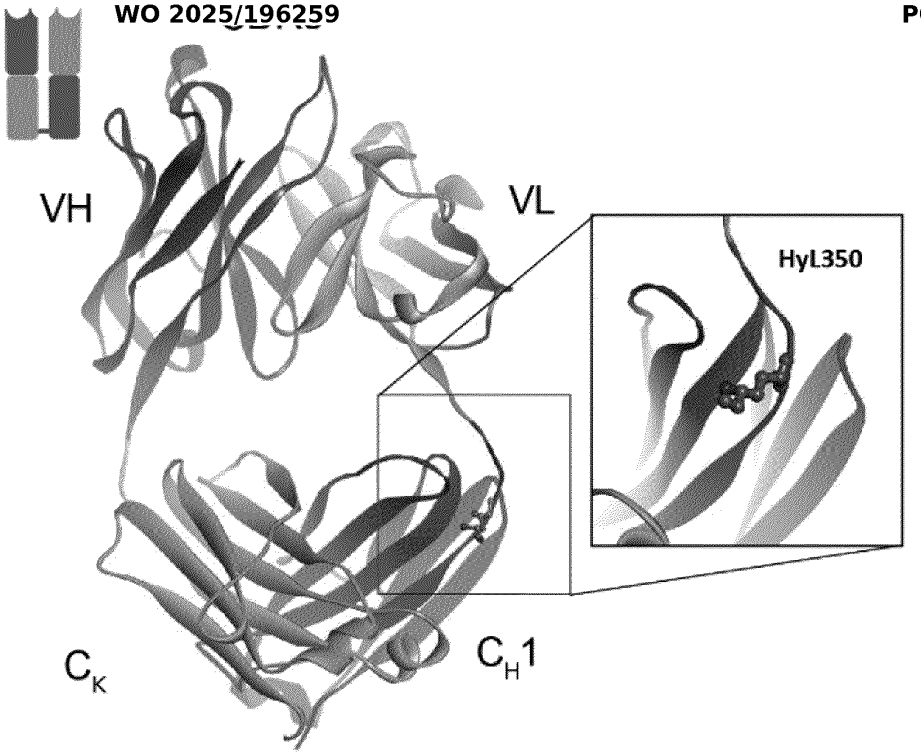


Figure 2D

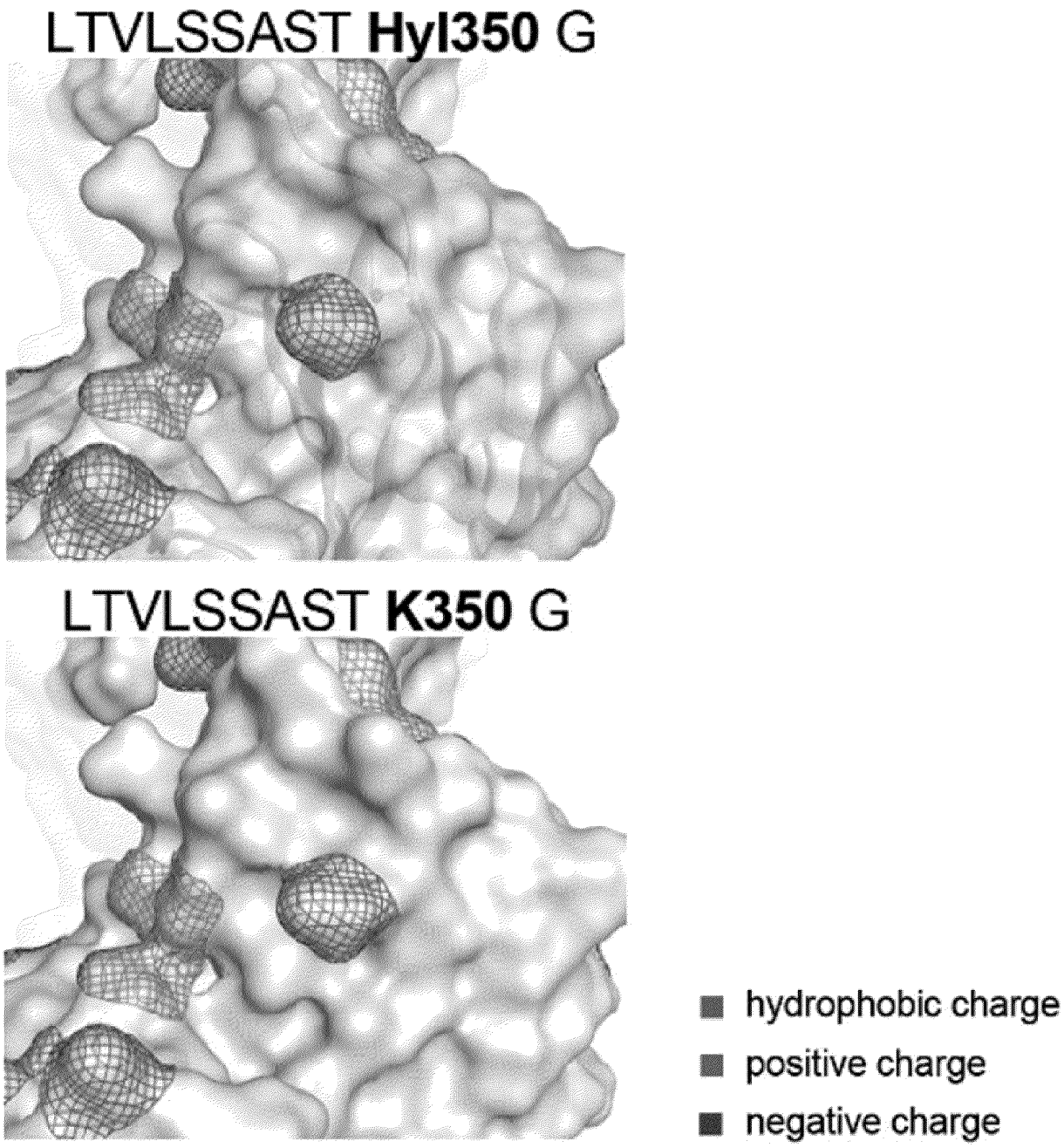

LTVLSSAST **HyI350** G
LTVLSSAST **K350** G
hydrophobic charge
positive charge
negative charge

Figure 2E

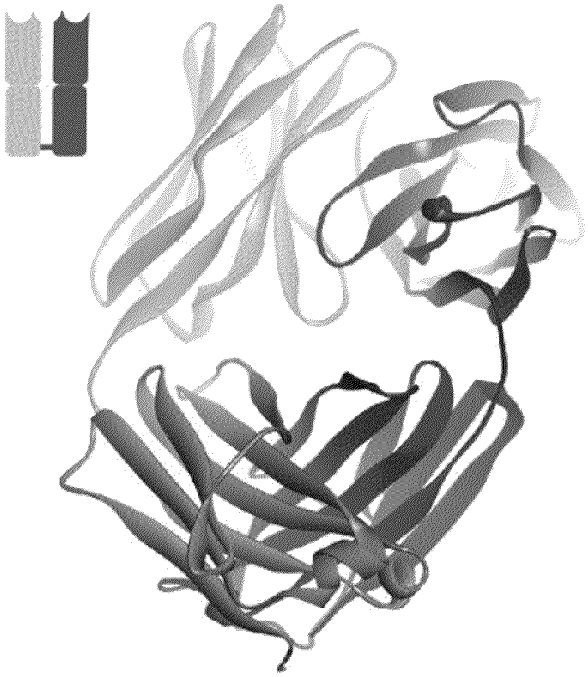


Figure 2F

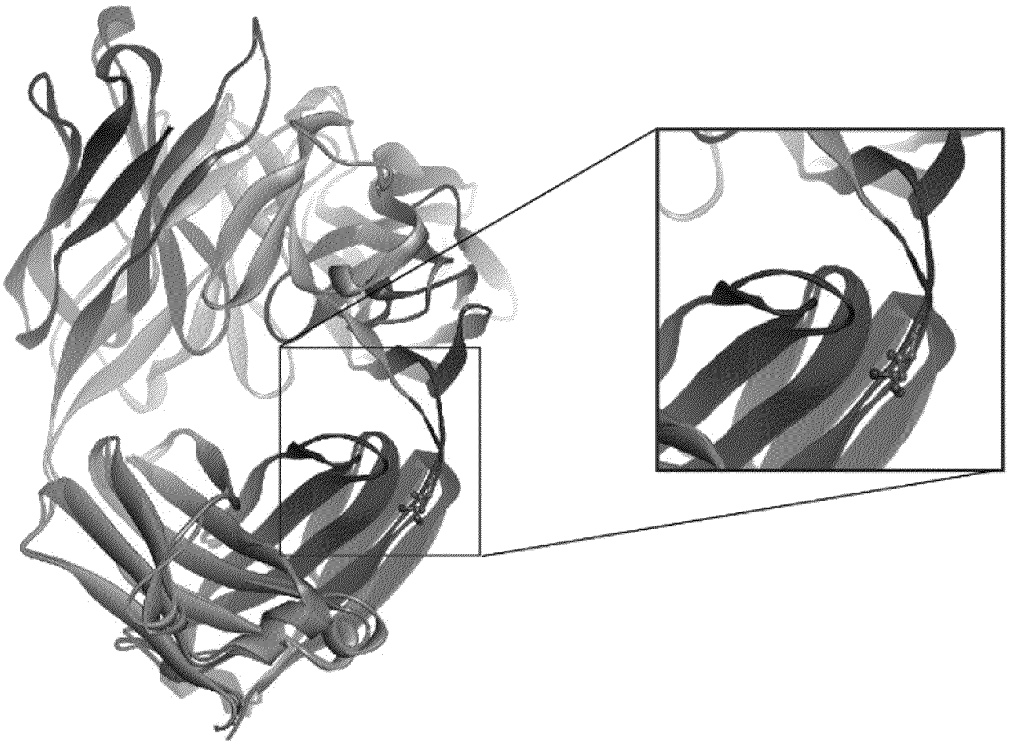


Figure 2G

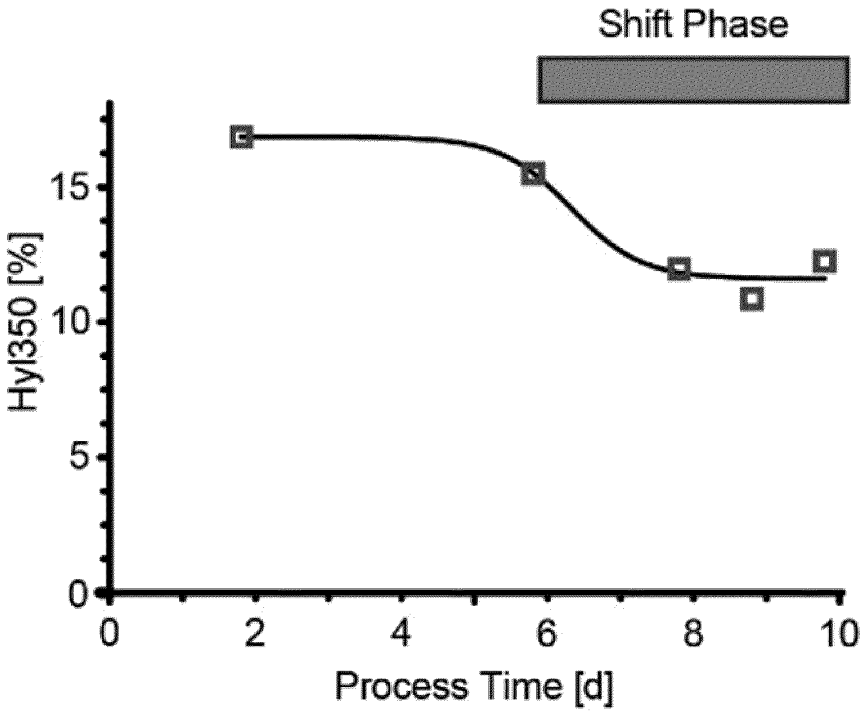


Figure 3A

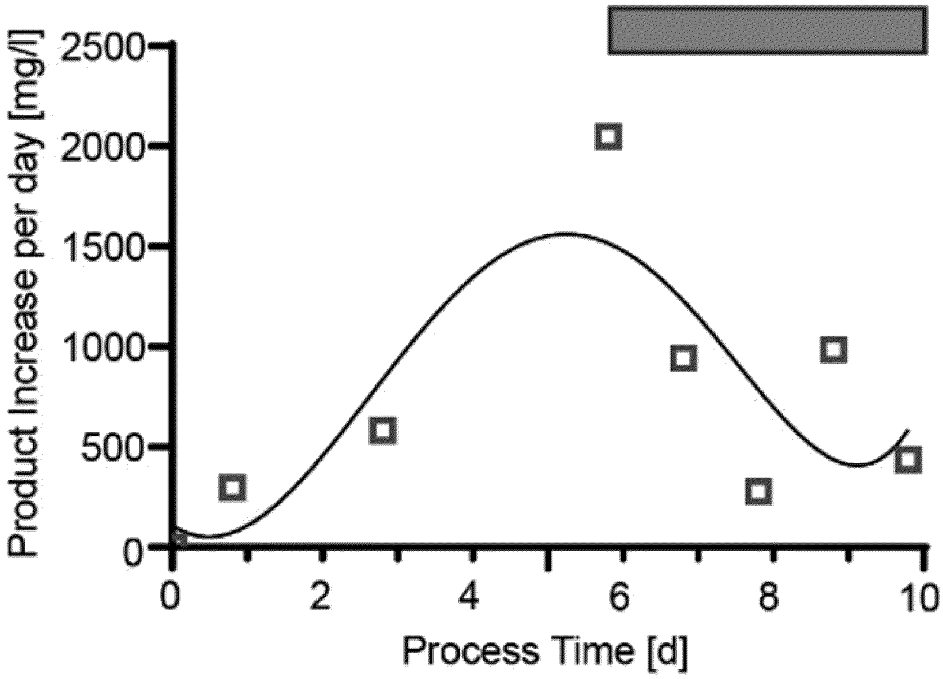


Figure 3B

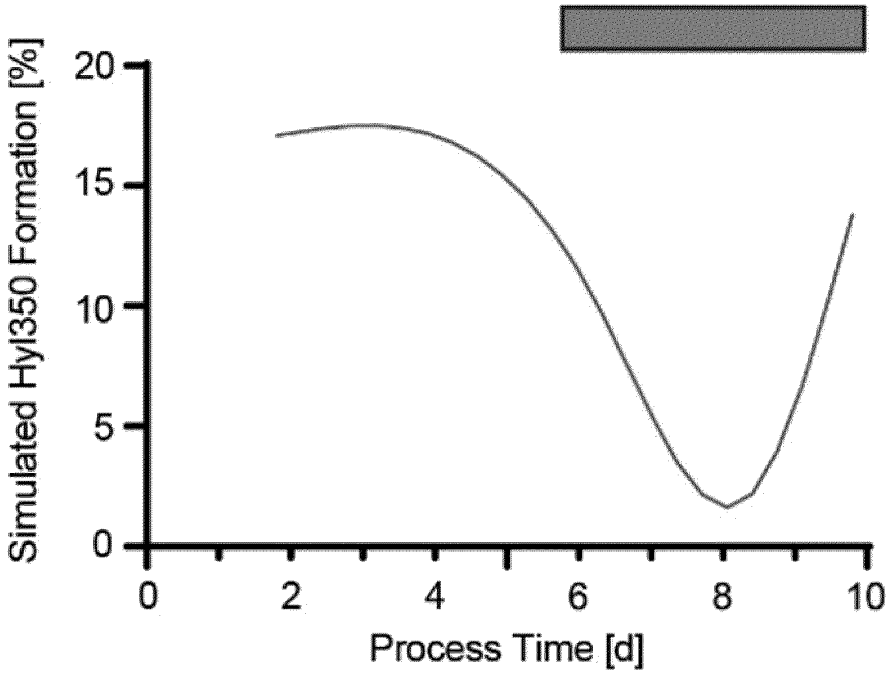

Simulated Hyl350 Formation [%]
20
15
10
5
0
0
2
4
6
8
10
Process Time [d]

Figure 3C

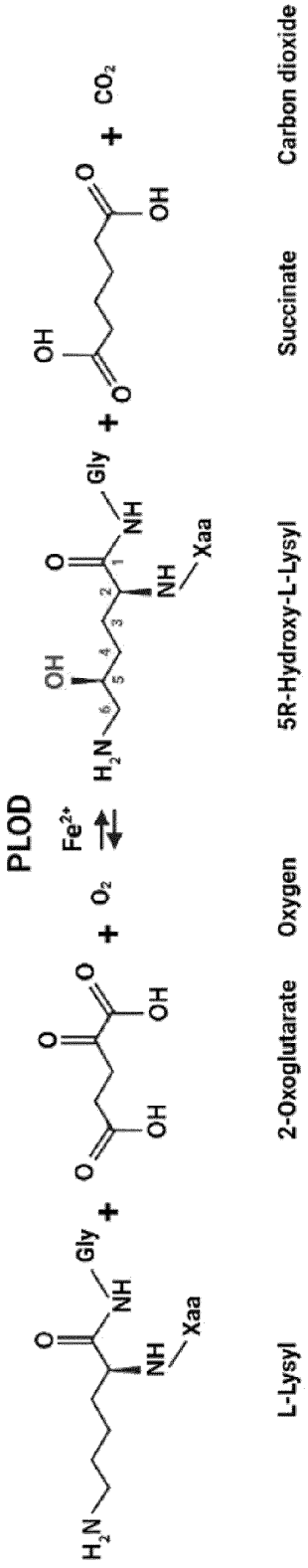

L-Lysyl
2-Oxoglutarate
Oxygen
5R-Hydroxy-L-Lysyl
Succinate
Carbon dioxide
PLOD
Fe2+
Gly
Xaa
NH
OH
O
OH
CO2
H2N

Figure 3D

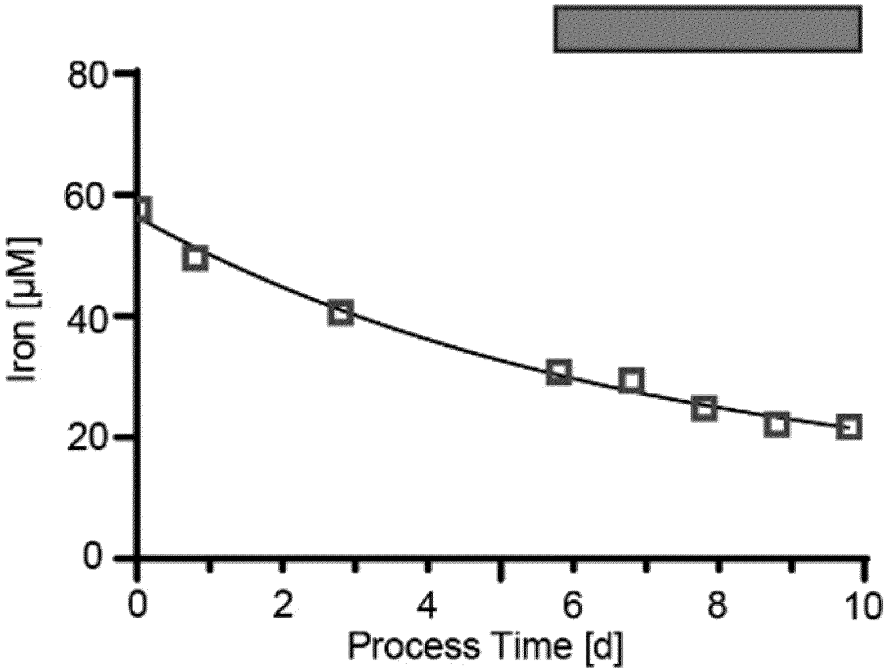


Figure 3E

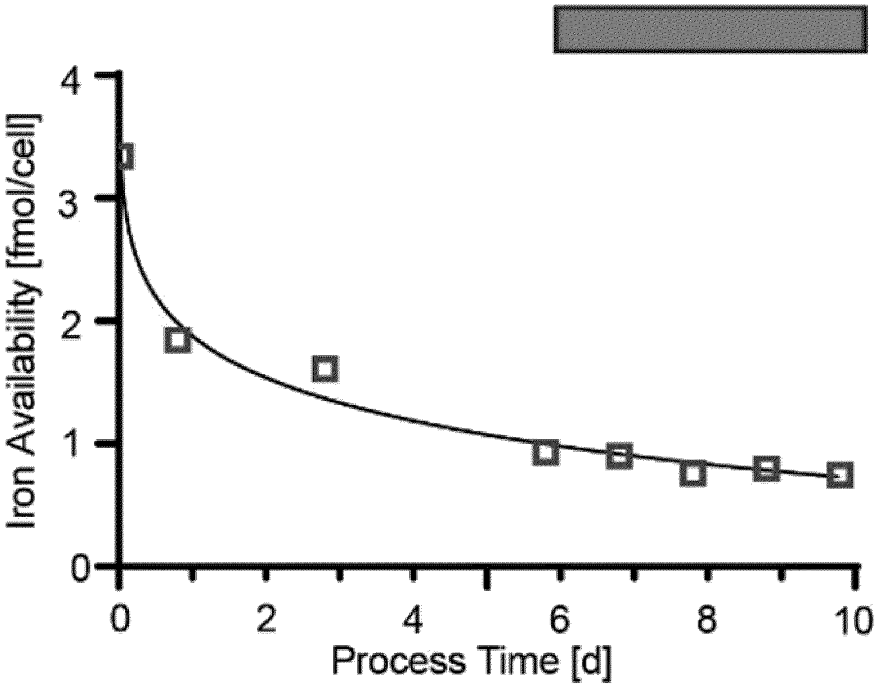


Figure 3F

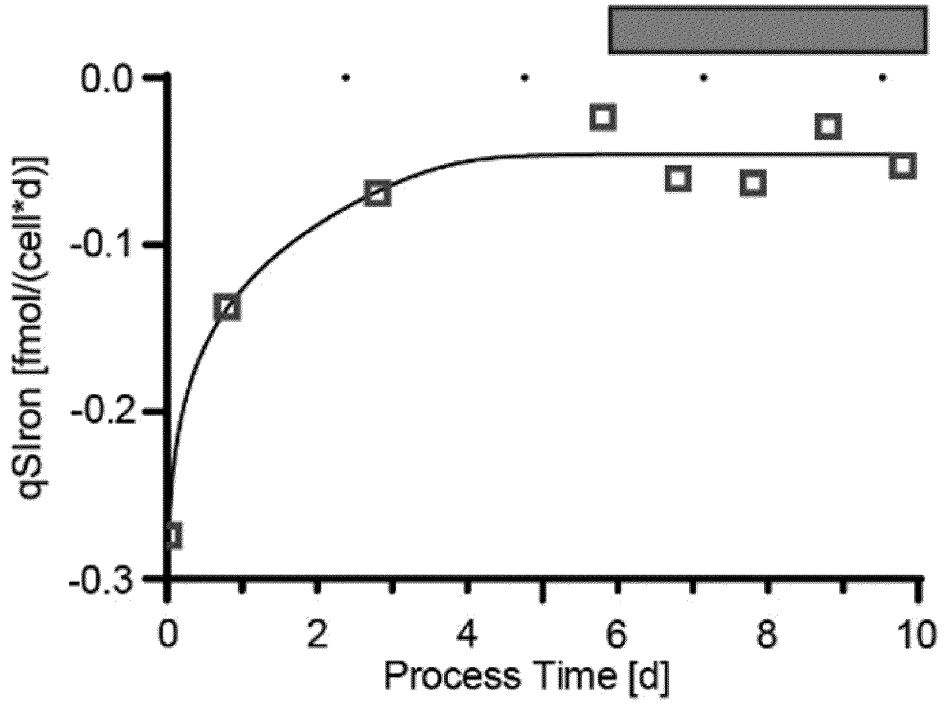


Figure 3G

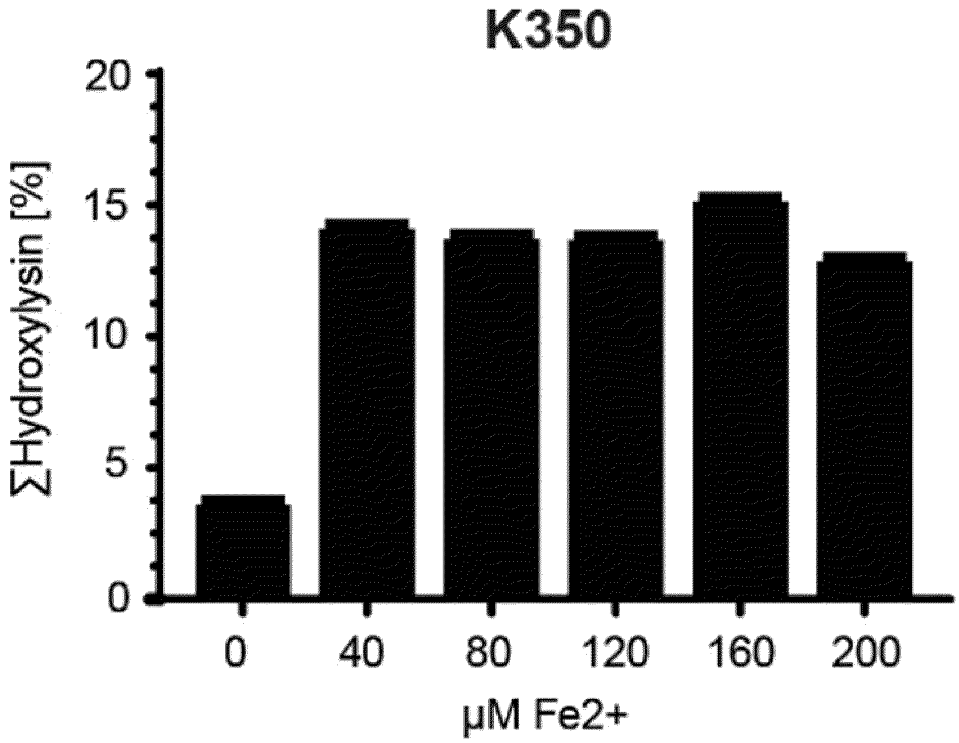


Figure 3H

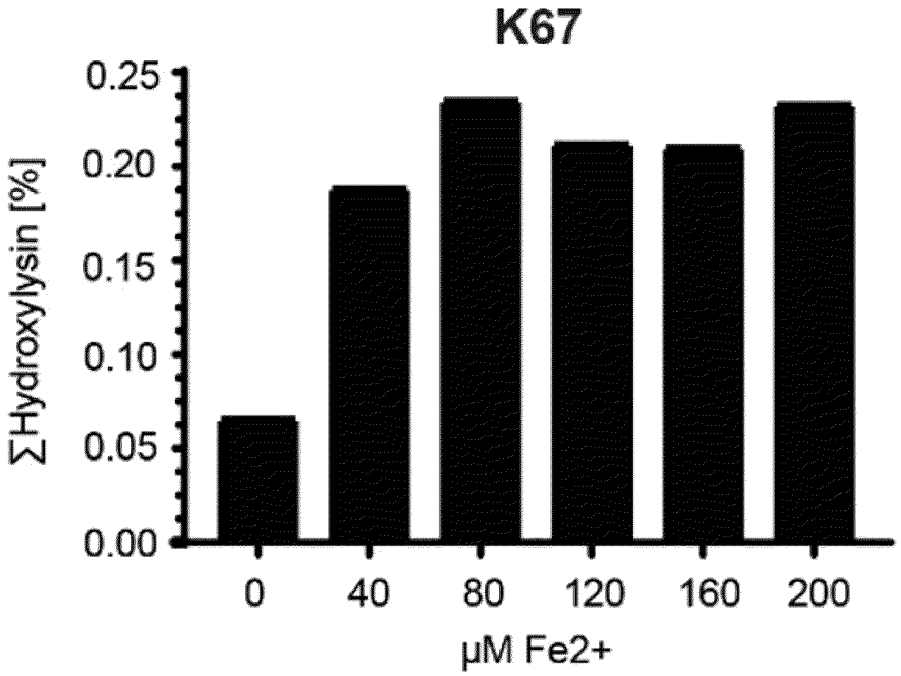


Figure 3I

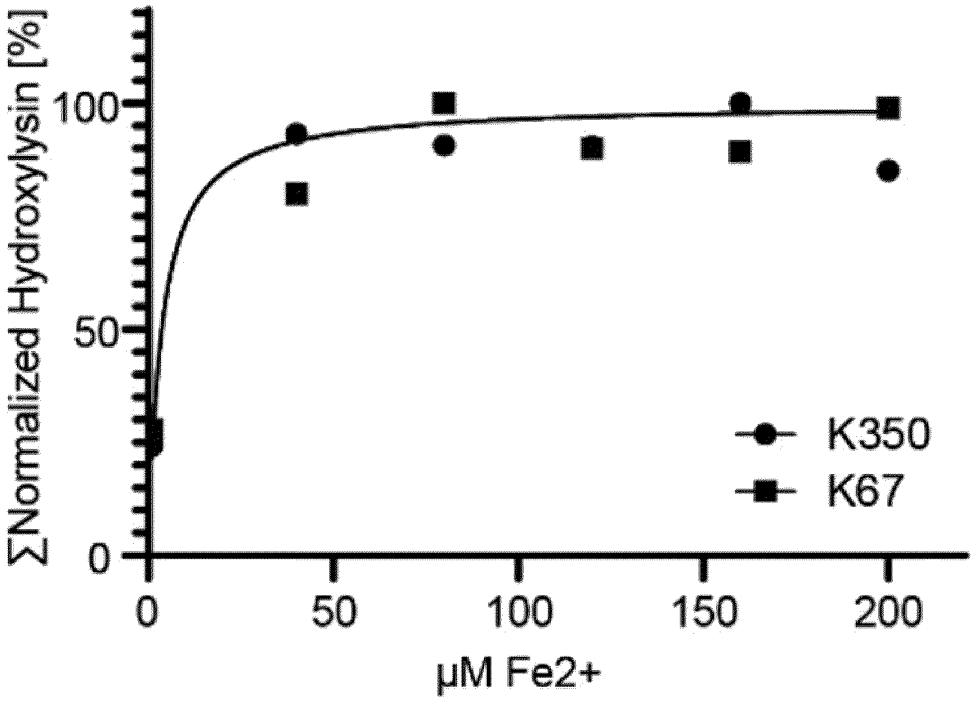


Figure 3J

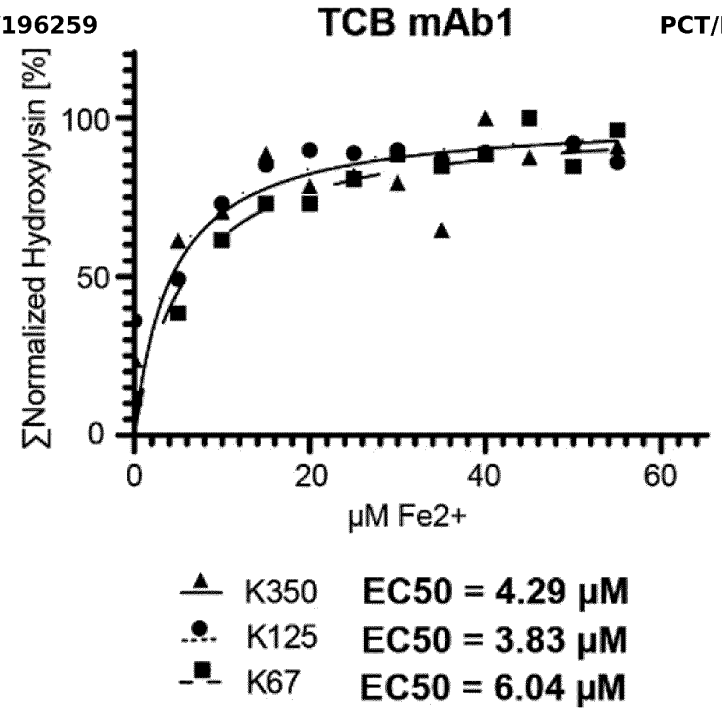


Figure 4A

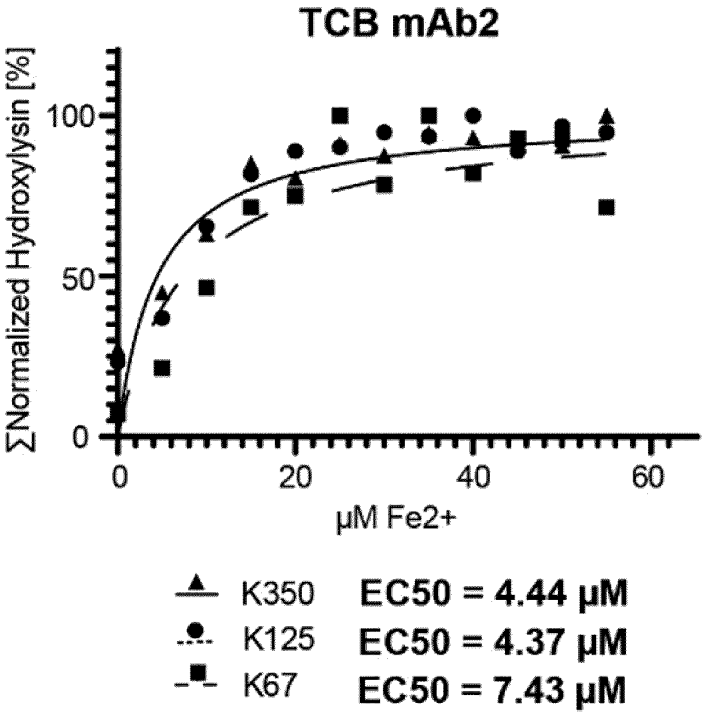


Figure 4B

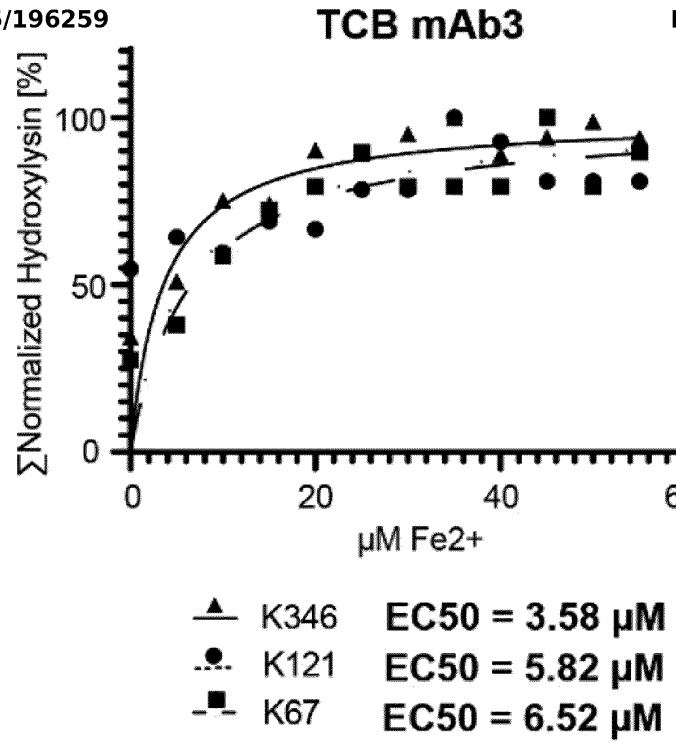


Figure 4C

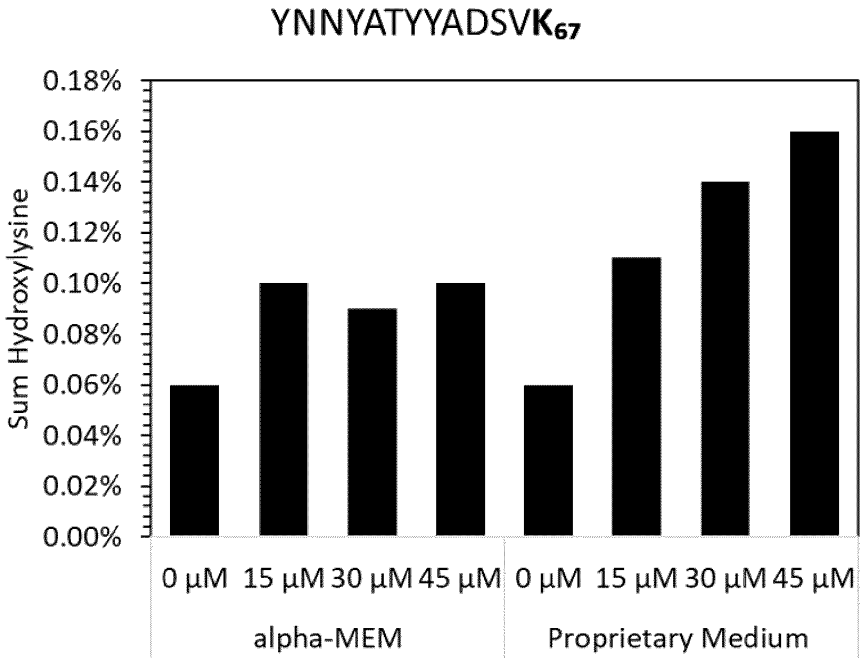


Figure 5A

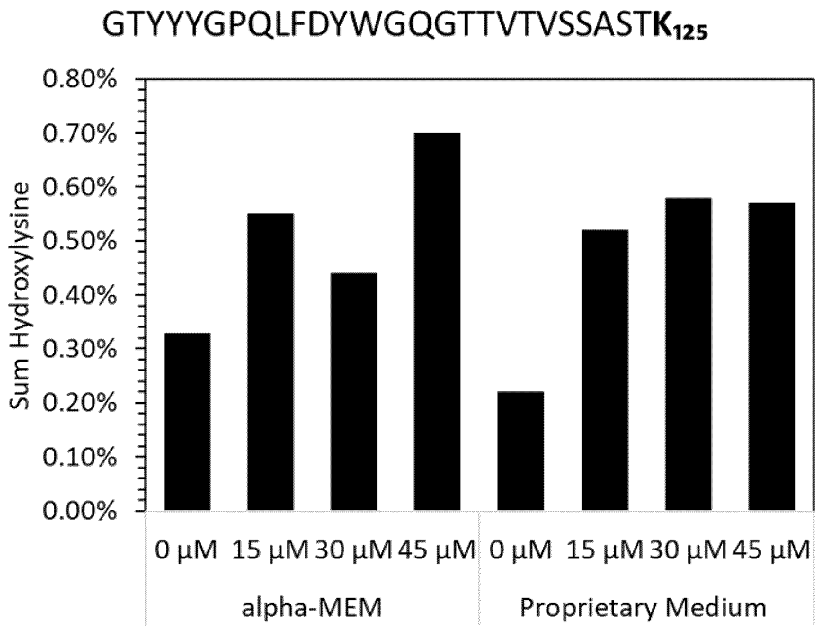


Figure 5B

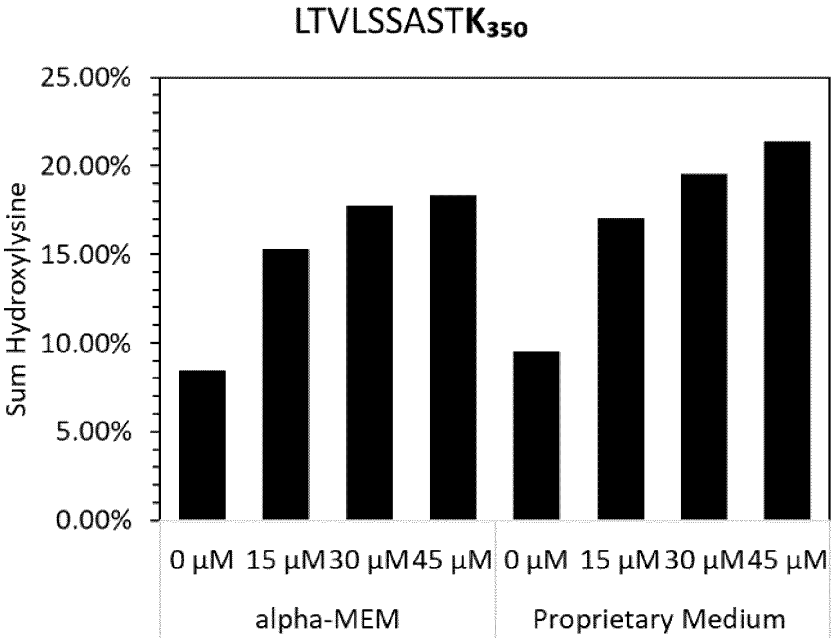


Figure 5C

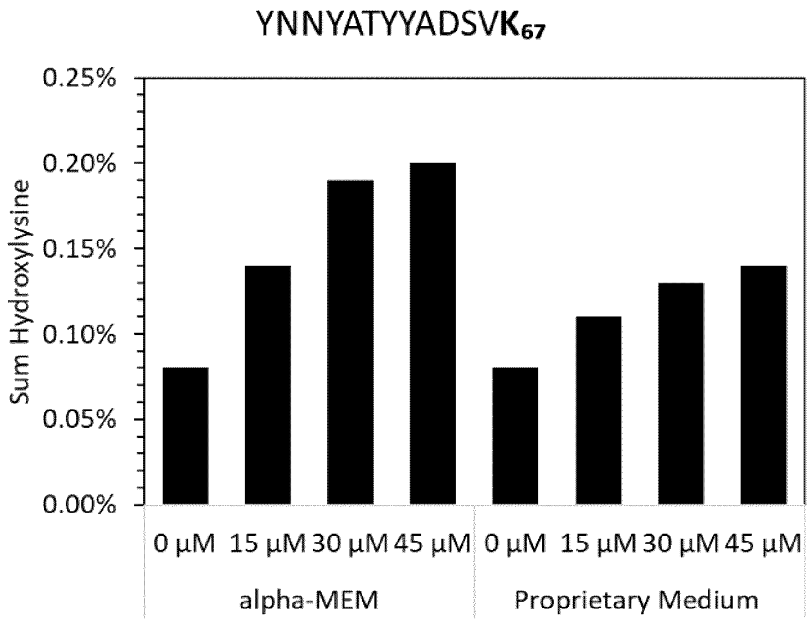


Figure 6A

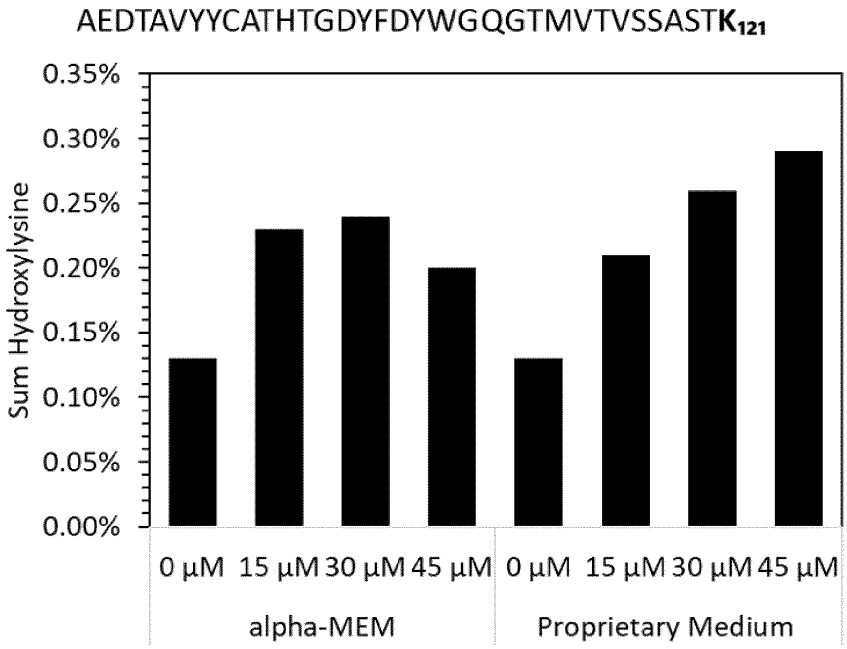


Figure 6B

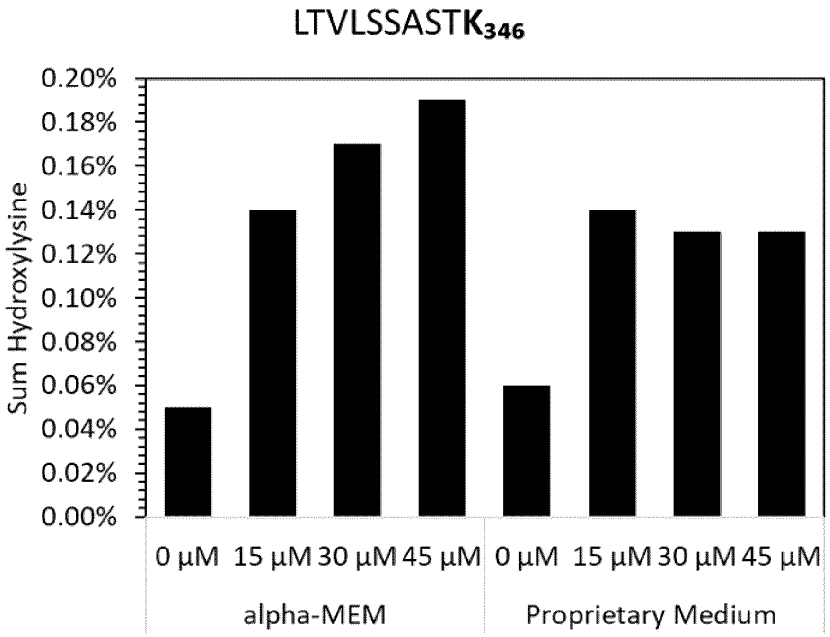

LTVLSSASTK346
Sum Hydroxylysine
0.20%
0.18%
0.16%
0.14%
0.12%
0.10%
0.08%
0.06%
0.04%
0.02%
0.00%
0 µM
15 µM
30 µM
45 µM
0 µM
15 µM
30 µM
45 µM
alpha-MEM
Proprietary Medium

Figure 6C