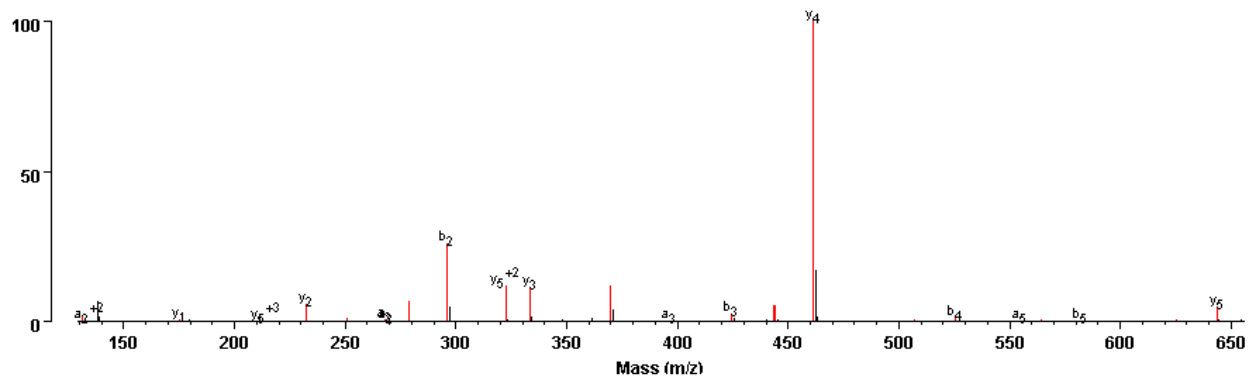


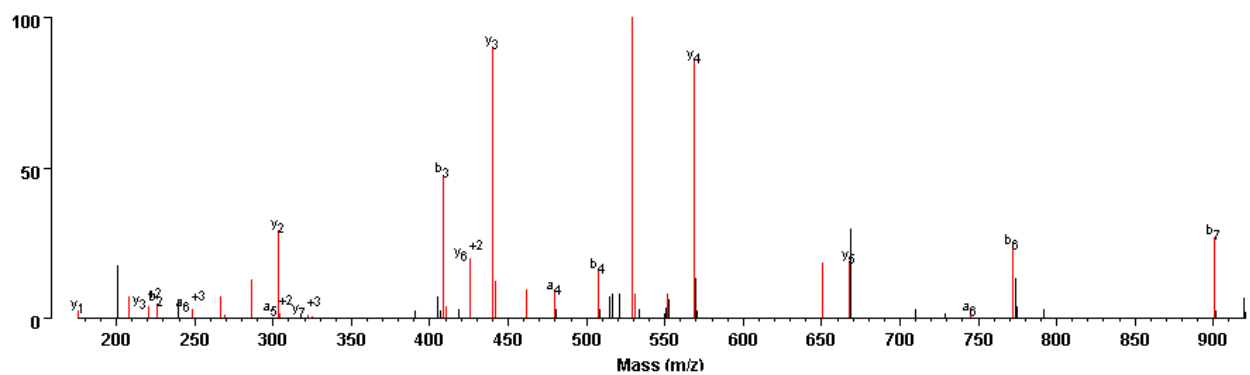
Supplementary Figure 1. MS3 sequence mass spectra of DSSO Interlinked peptides of the yeast 19S RP

470.7456 4+, (R)QNKVQHQR(I) Rpn10:K104 to (M)LKQTGR(D) Rpn11:K96

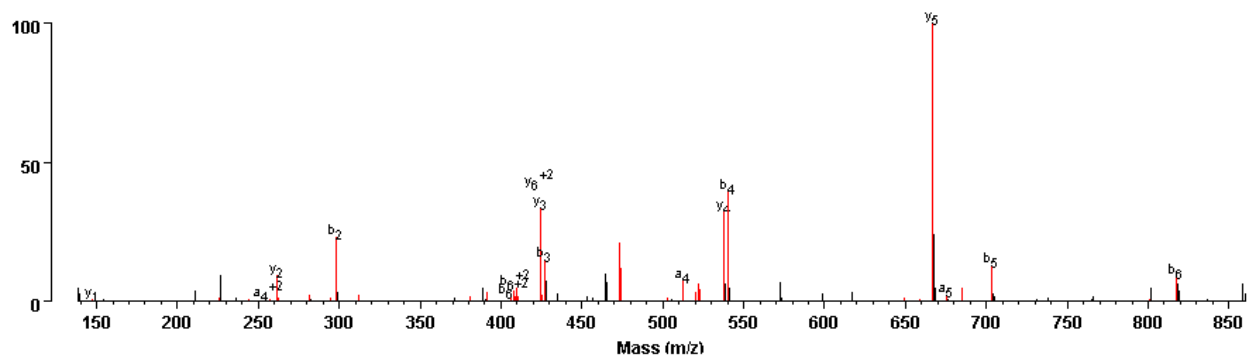
**LK(Alkene)QTGR<sup>+2</sup>**



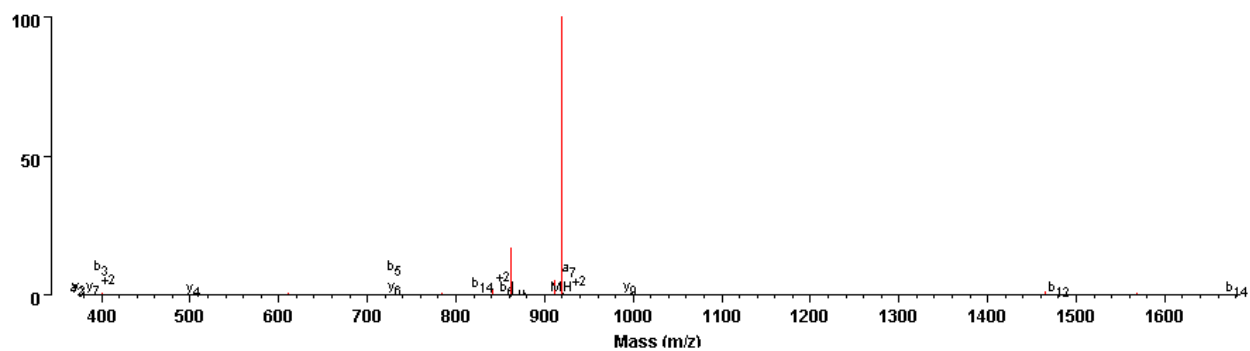
**Q(Gln->pyro-Glu)NK(Alkene)VQHQR<sup>+2</sup>**



705.3648 4+, (R)DREPKEPVALIETVR(Q) Rpn2:K911 to (K)DKEIYNK(M) Rpn13:K119  
**DK(Alkene)EIYNK<sup>+2</sup>**

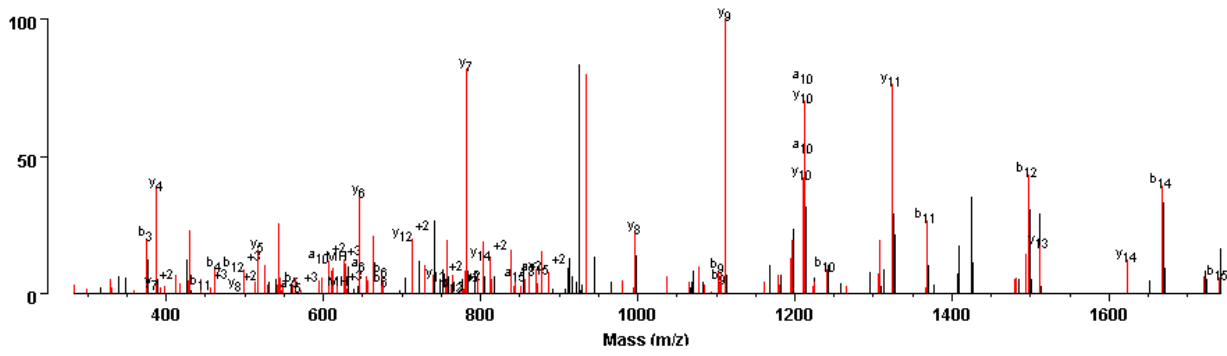


**DREPK(Sulfenic)EPVALIETVR<sup>+2</sup>**

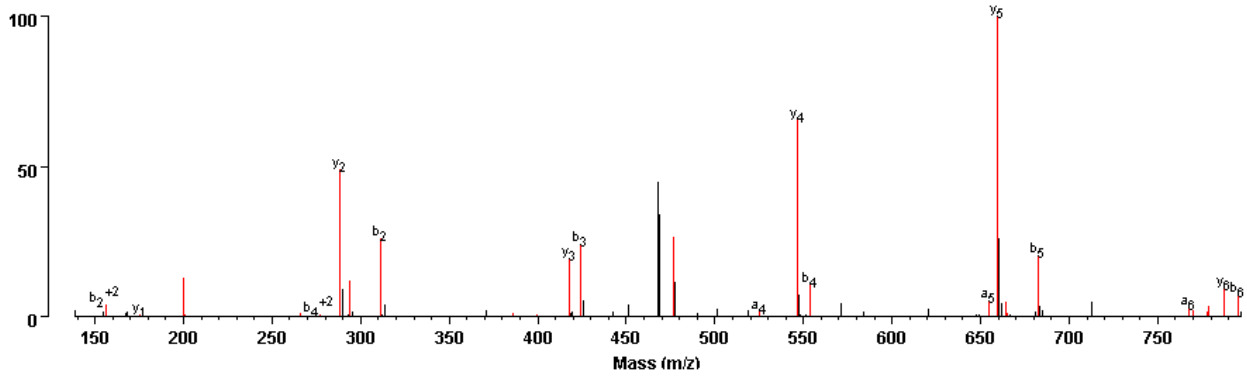


718.6339 4+, (K)NFLSVITNKHQGLAK(F) Rpn2:K689 to (K)KQLEEIR(G) Rpt2:K94

**NFLSVITNK(ThioI)HQGLAK<sup>+2</sup>**

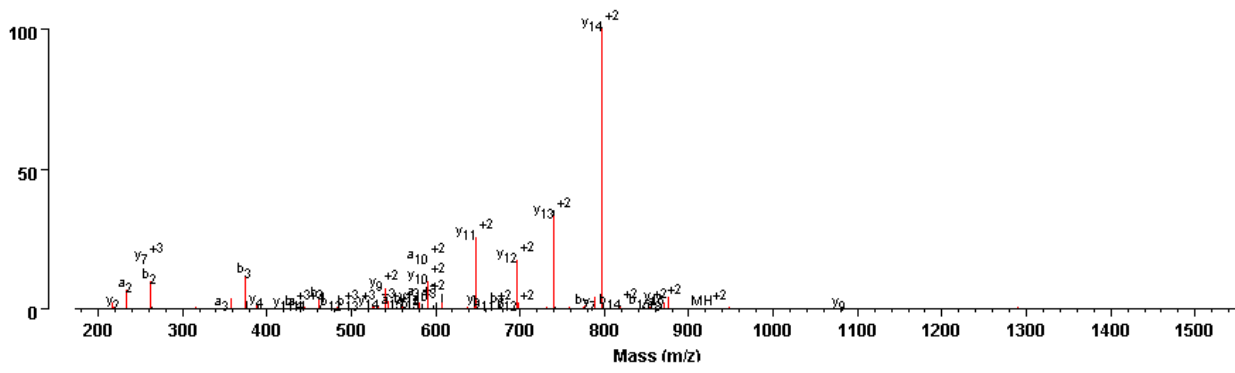


**K(Alkene)QLEEIR<sup>+2</sup>**

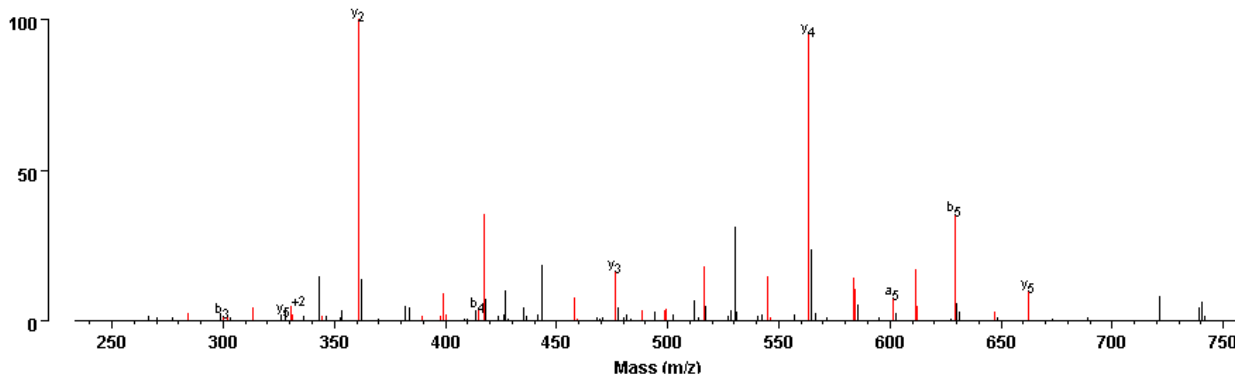


662.1066 4+, (K)NFLSVITNKHQGLAK(F) Rpn2:K689 to (K)IVSDKK(V) Rpt6:K82

### NFLSVITNK(Alkene)HQGLAK<sup>+3</sup>

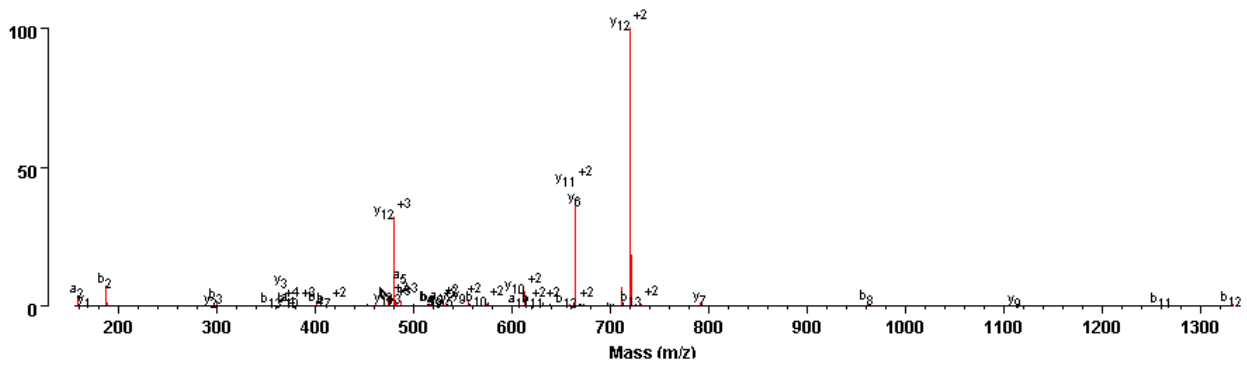


### IVSDK(Thiol)K

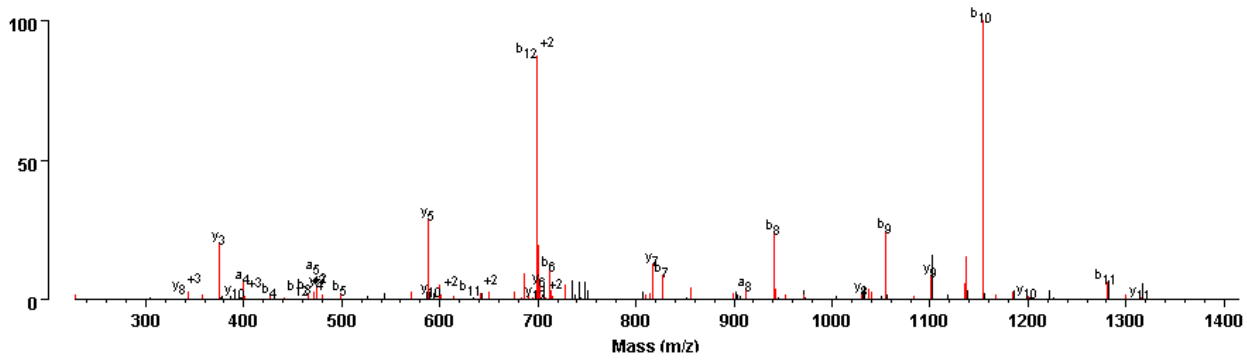


634.9438 5+, (L)SVITNKHQGLAKF(G) Rpn2:K689 to (Y)IVDVAKDINVKDL(K) Rpt6:K100

**SVITNK(Alkene)HQGLAKF<sup>+3</sup>**

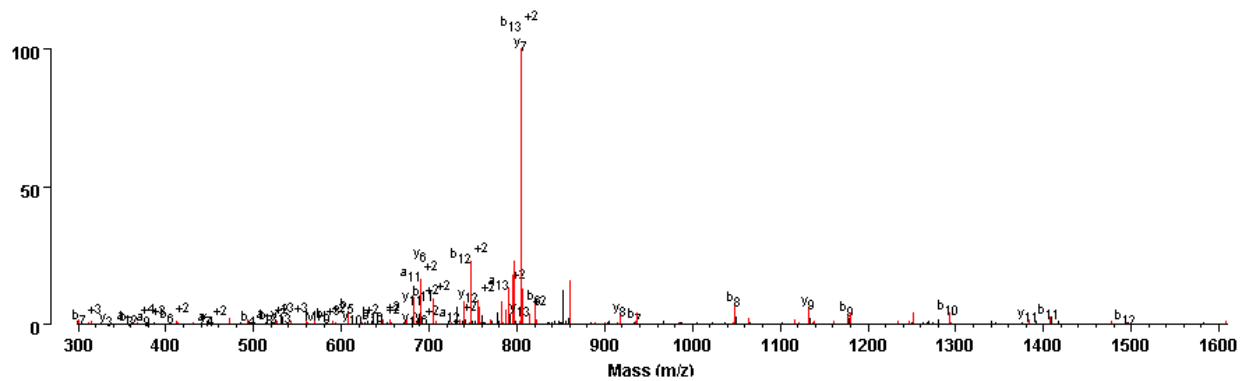


**IVDVAK(Thiol)DINVKDL<sup>+2</sup>**

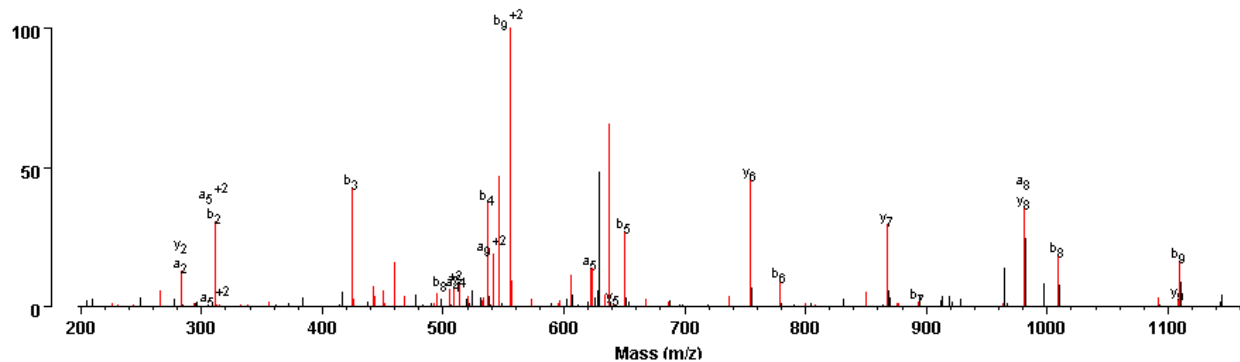


762.3977 4+, (Y)KQLLLKDDTY(Q) Rpn3:K368 to (Y)LDKHIKNLEDDSL(S) Rpn12:K134

**LDKHIK(Thio)NLEDDSL<sup>+2</sup>**

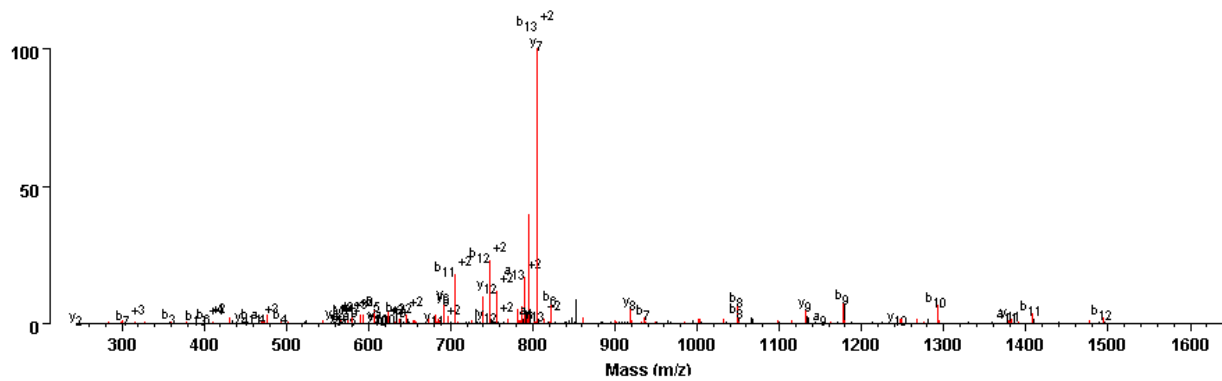


**K(Alkene)QLLLKDDTY<sup>+2</sup>**

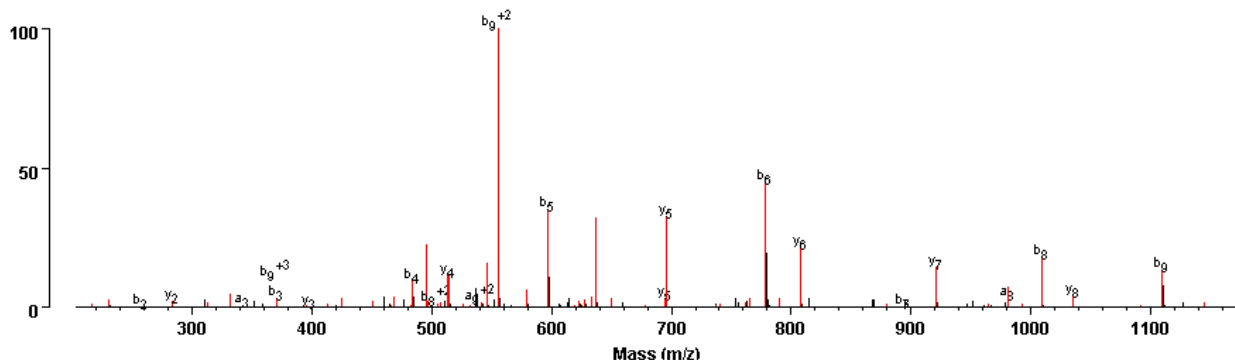


762.3990 4+, (Y)KQLLLKDDTY(Q) Rpn3:K373 to (Y)LDKHIKNLEDDSL(S) Rpn12:K134

**LDKHIK(Thio)NLEDDSL<sup>+2</sup>**

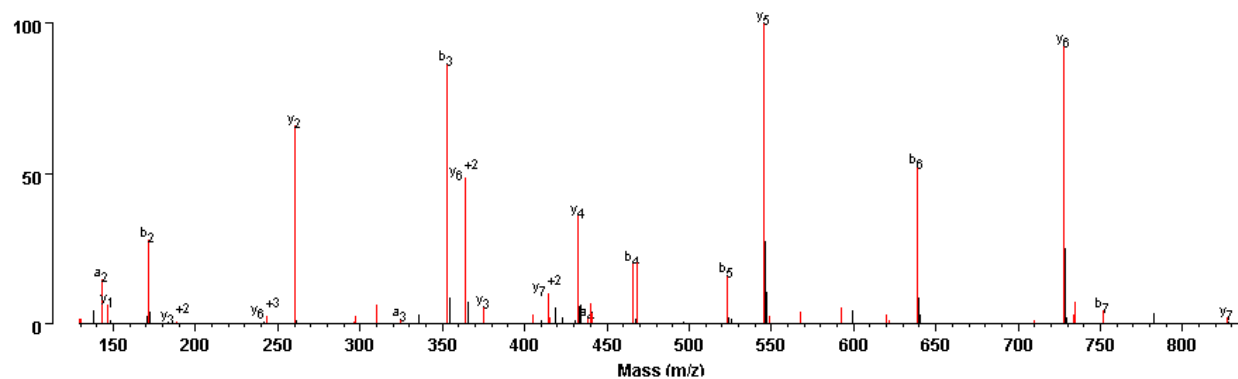


**KQLLLK(Alkene)DDTY<sup>+2</sup>**

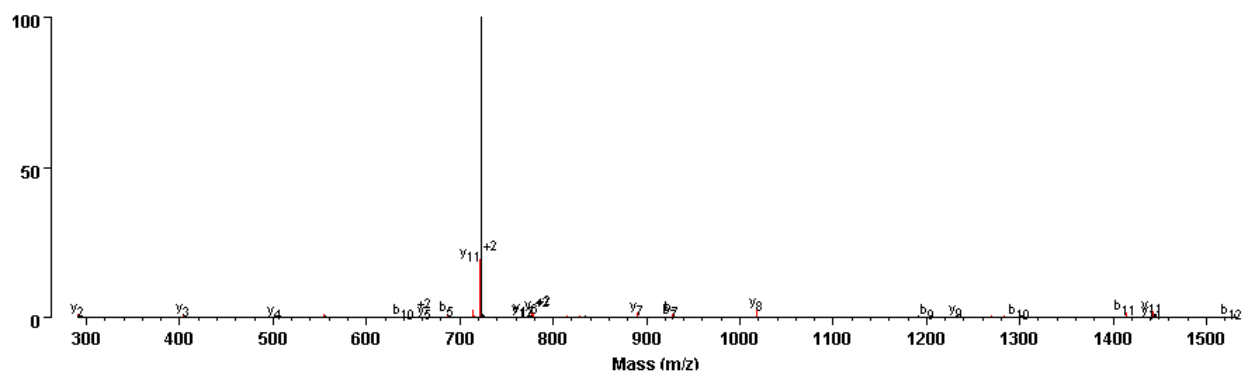


655.3500 4+, (K)AVKLGDLK(K) Rpn3:K353 to (K)FIPNKQLNCVIDR(V) Rpn7:K375

**AVK(Alkene)LGDLK<sup>+2</sup>**



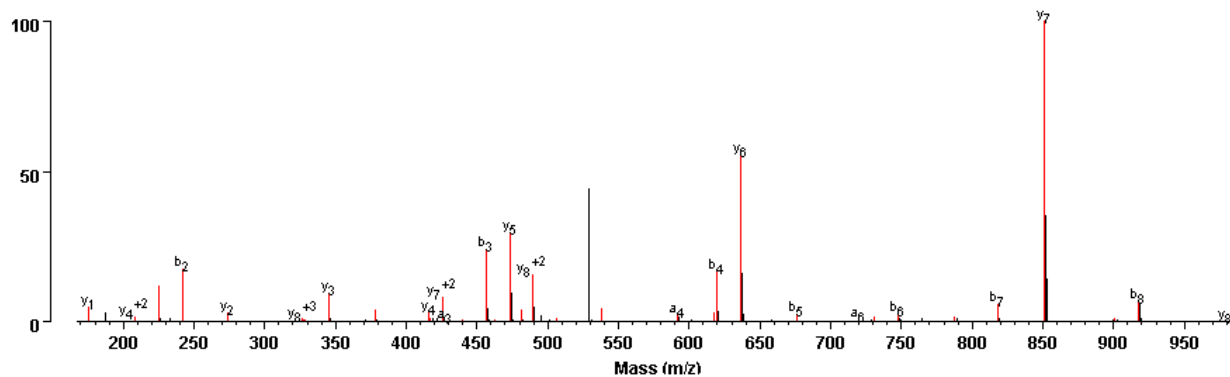
**FIPNK(Thiol)QLNC(Carbamidomethyl)VIDR<sup>+2</sup>**



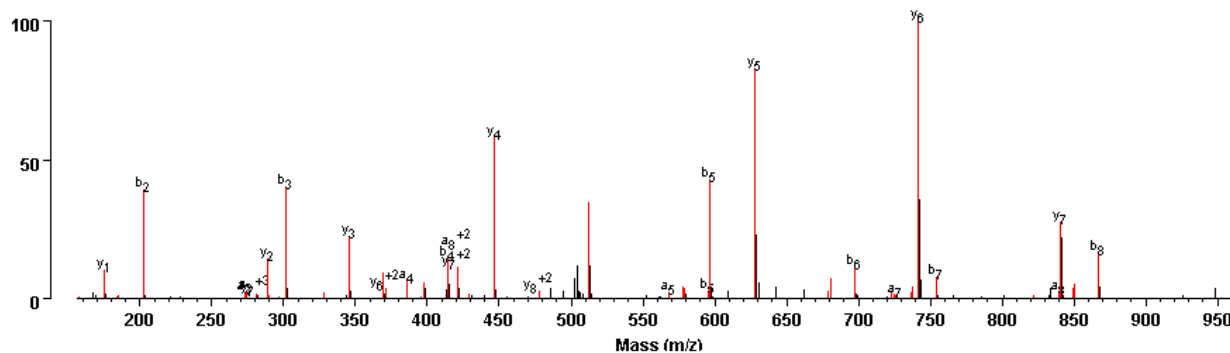


538.3007 4+, (R)SNVIKTGIR(I) Rpn3:K389 to (K)LQKYGAAVR(L) Rpn7:K416

### LQK(Thiol)YGA AVR<sup>+2</sup>

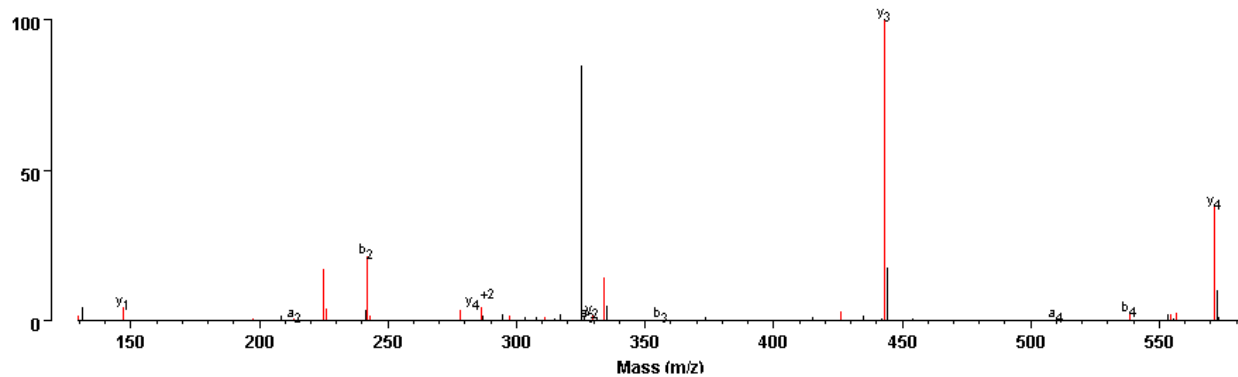


### SNVIK(Alkene)TGIR<sup>+2</sup>

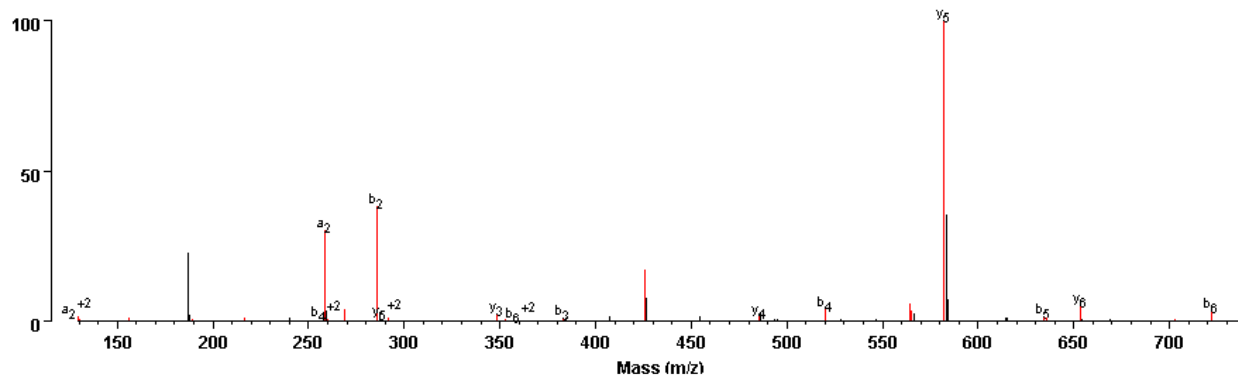


392.9608 4+, (R)KAPHNSK(S) Rpn3:K299 to (K)IQNKK(I) Rpn8:K299

### **IQNK(Alkene)K<sup>+2</sup>**

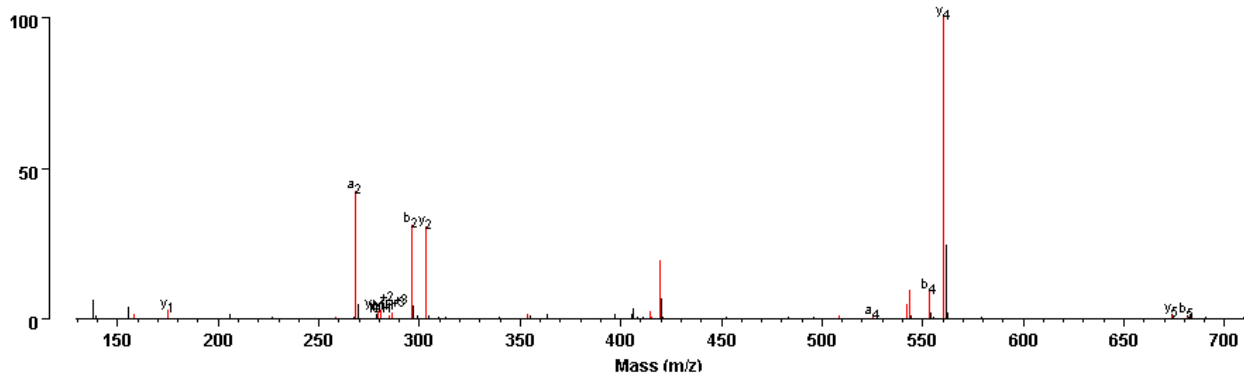


### **K(Thiol)APHNSK<sup>+2</sup>**

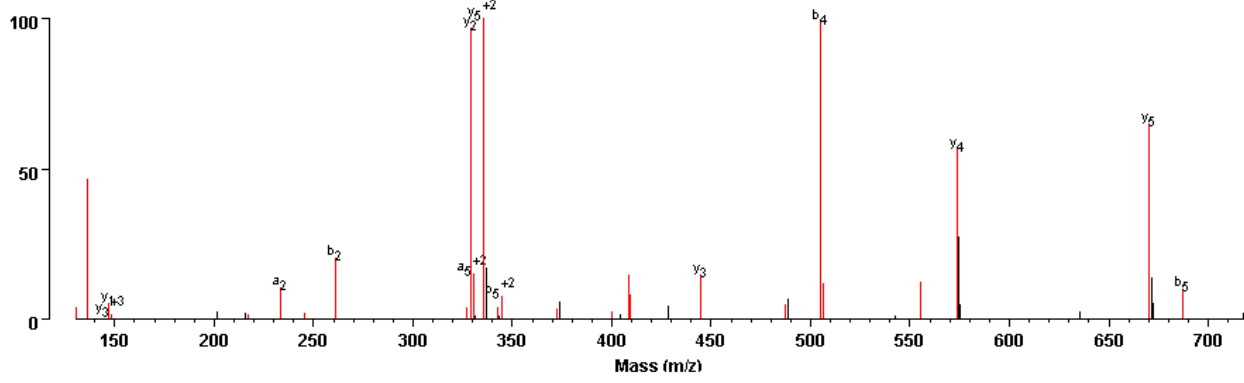


579.9552 3+, (R)YPEDKK(T) Rpn3:K485 to (K)KIQEQR(V) Rpn8:K300

**K(Alkene)IQEQR<sup>+2</sup>**

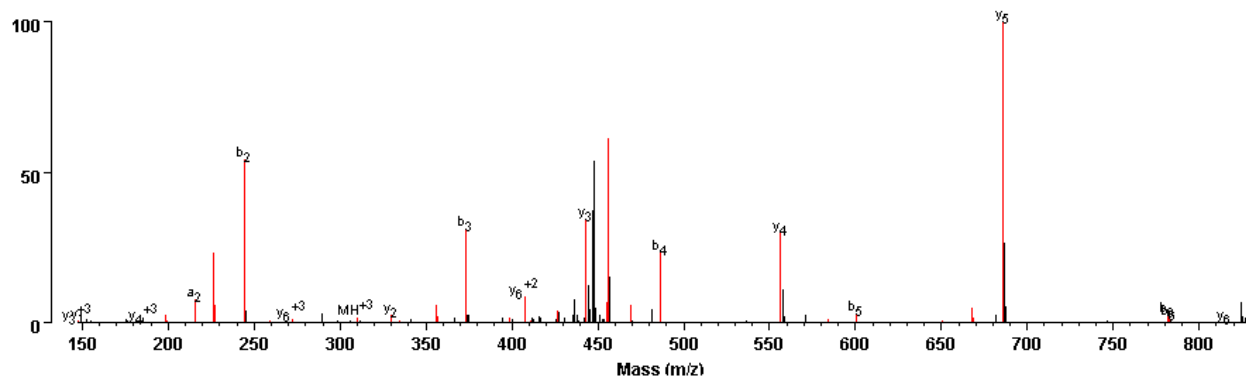


**YPEDK(Alkene)K<sup>+2</sup>**

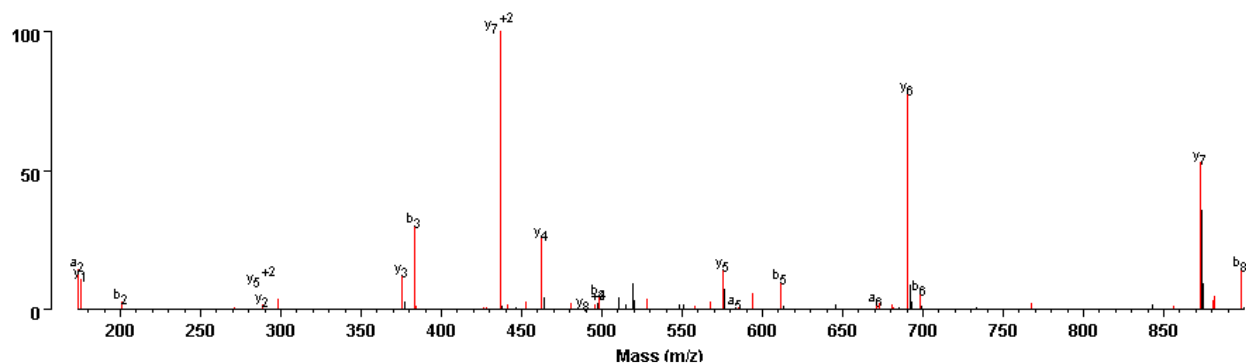


513.2690 4+, (R)SLKDLSSLR(N) Rpn3:K58 to (K)NEEINKK(S) Rpn15/Sem1:K26

**NEEINK(Alkene)K<sup>+2</sup>**

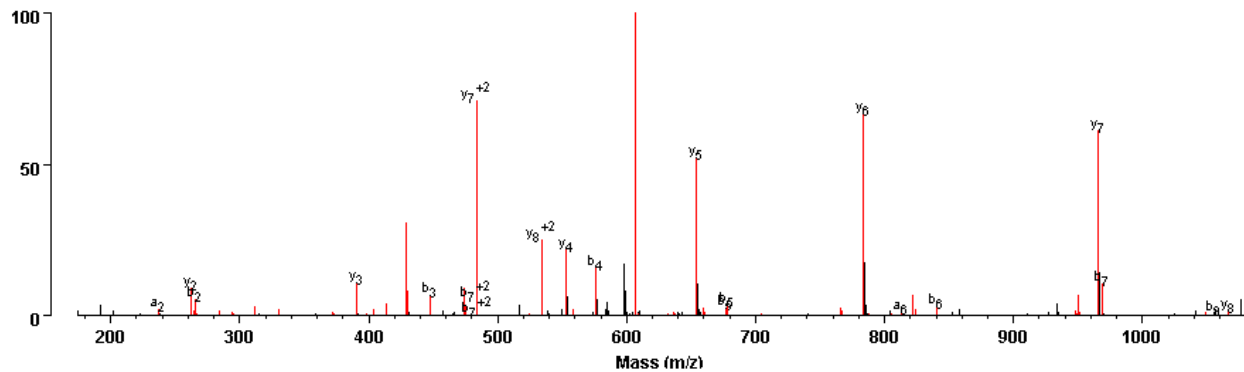


**SLK(Alkene)DLSSLR<sup>+2</sup>**

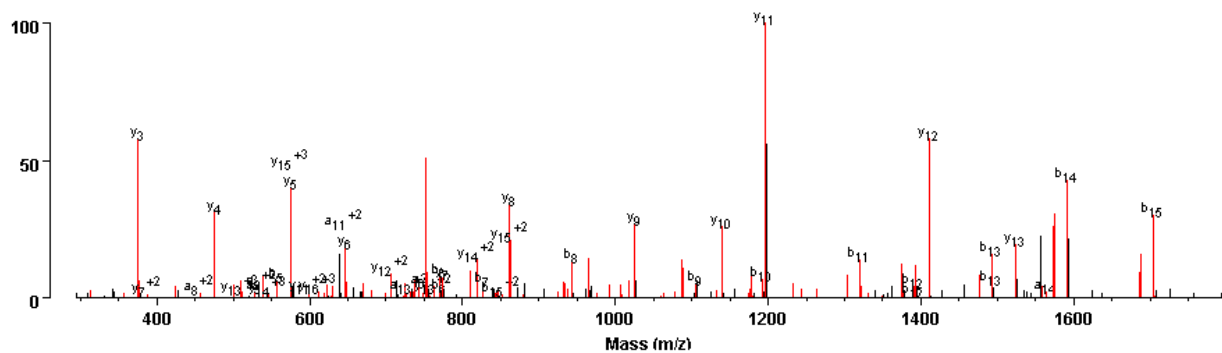


803.9032 4+, (M)ELSILKGDYSQATVLSR(K) Rpn5:K190 to (K)YTKETYQSR(G) Rpn6:K288

**YTK(Alkene)ETYQSR<sup>+2</sup>**

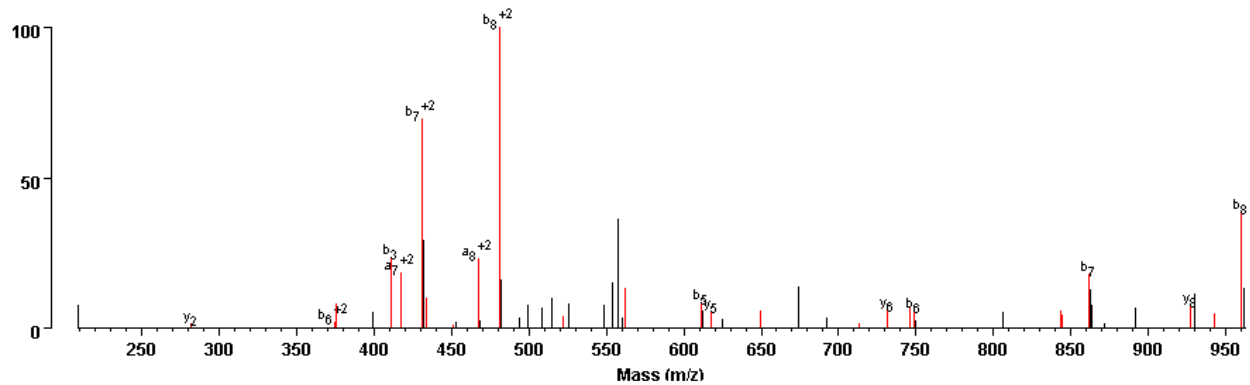


**ELSILK(Thiol)GDYSQATVLSR<sup>+2</sup>**

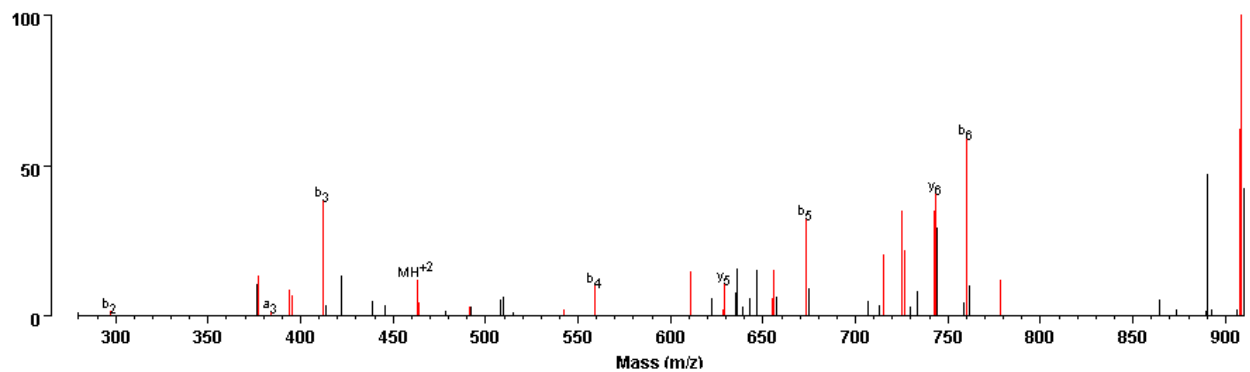


695.3421 3+, (W)KPVLSHIVY(F) Rpn5:K258 to (F)KNDFNSF(Y) Rpn9:K182

### K(Thio)PVLSHIVY<sup>+2</sup>

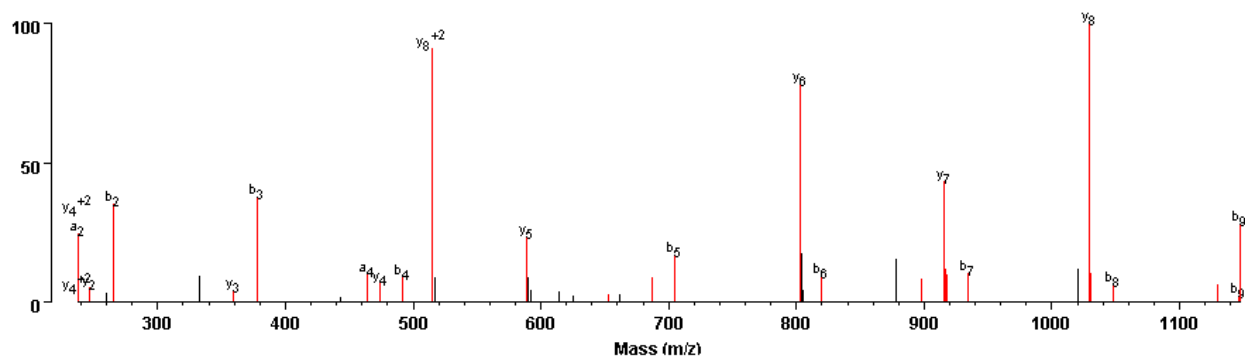


### K(Alkene)NDFNSF

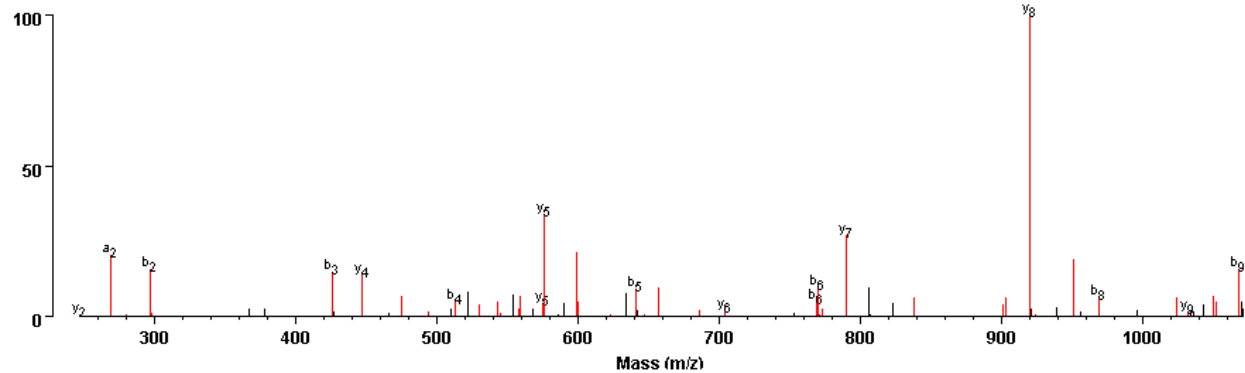


631.8461 4+, (K)KLESQESLVK(L) Rpn5:K292 to (R)TYLLKNDLVK(A) Rpn9:K140

### TYLLK(Thiol)NDLVK<sup>+2</sup>

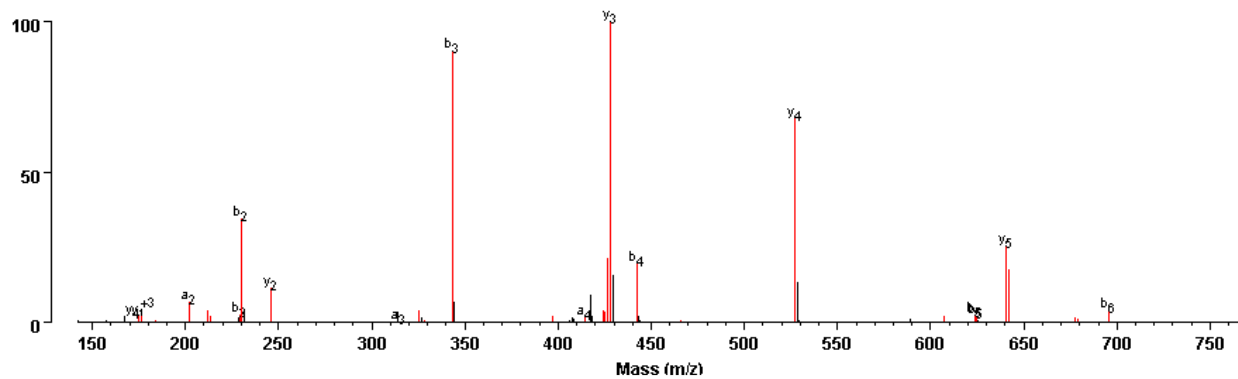


### K(Alkene)LESQESLVK<sup>+2</sup>

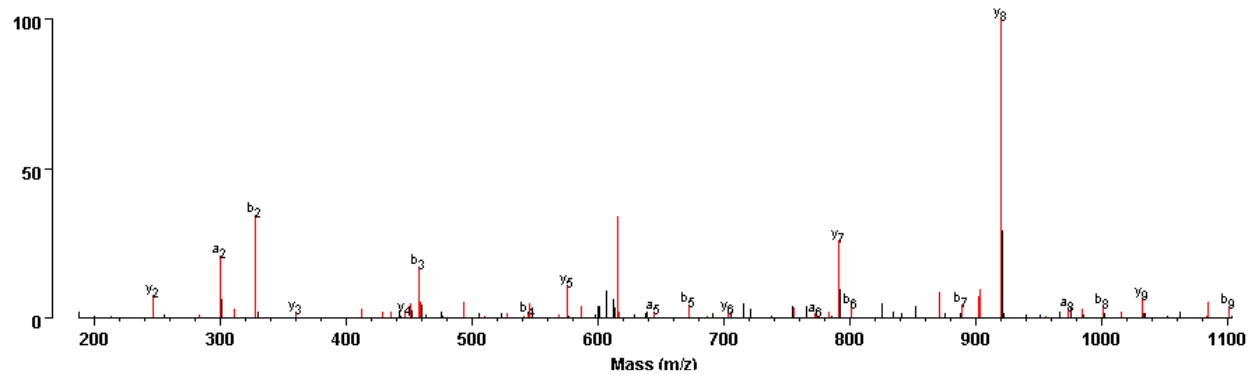


534.0375 4+, (K)KLESQESLVK(L) Rpn5:K292 to (K)NDLVKAR(D) Rpn9:K145

### NDLVK(Alkene)AR<sup>2+</sup>



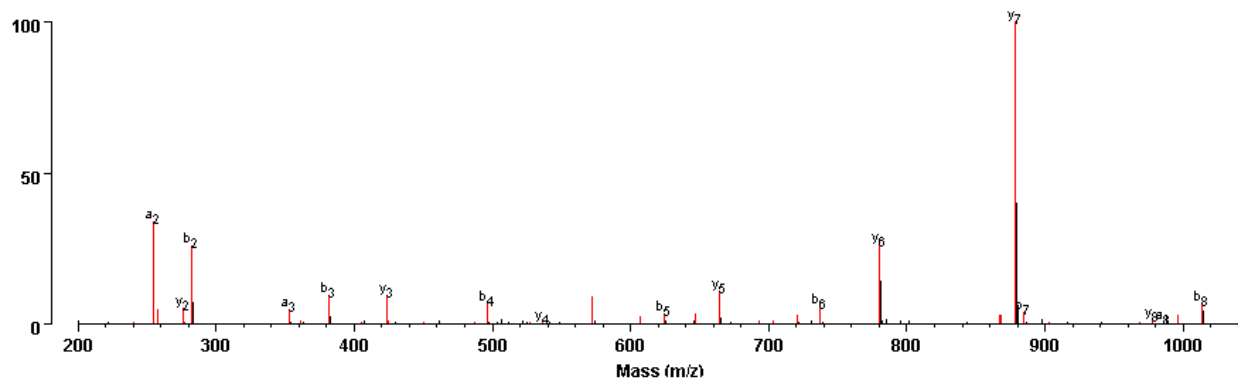
### K(Thio)LESQESLVK<sup>2+</sup>



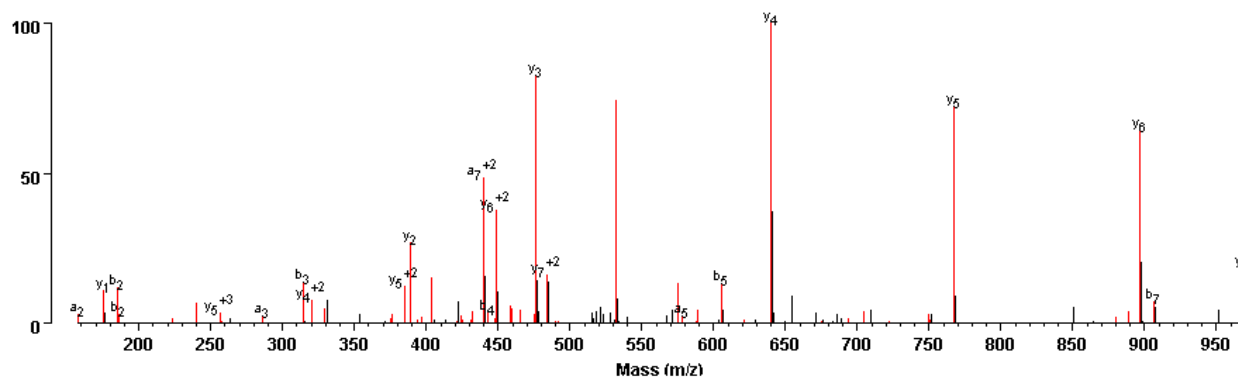


565.0448 4+, (N)KVVDQLFEK(A) Rpn6:K421 to (K)IAEQYSKR(I) Rpn11:K253

**K(Alkene)VVDQLFEK<sup>+2</sup>**

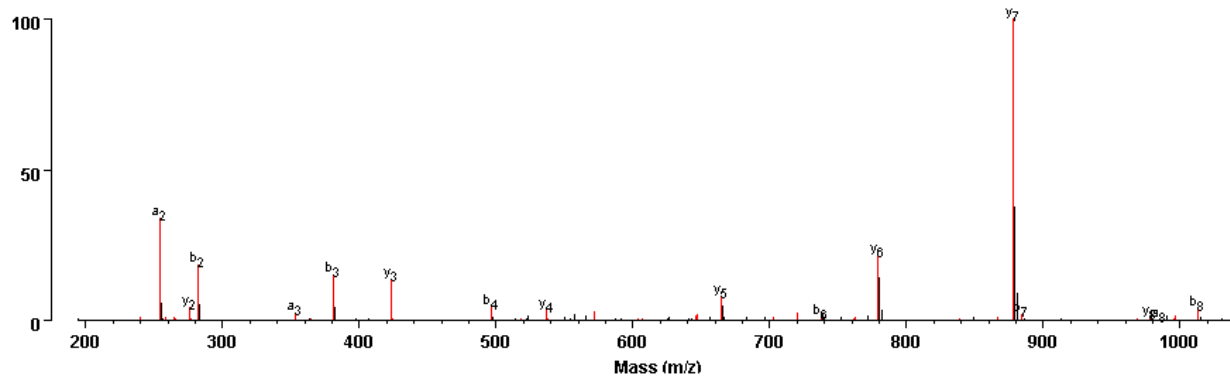


**IAEQYSK(Thiol)R<sup>+2</sup>**

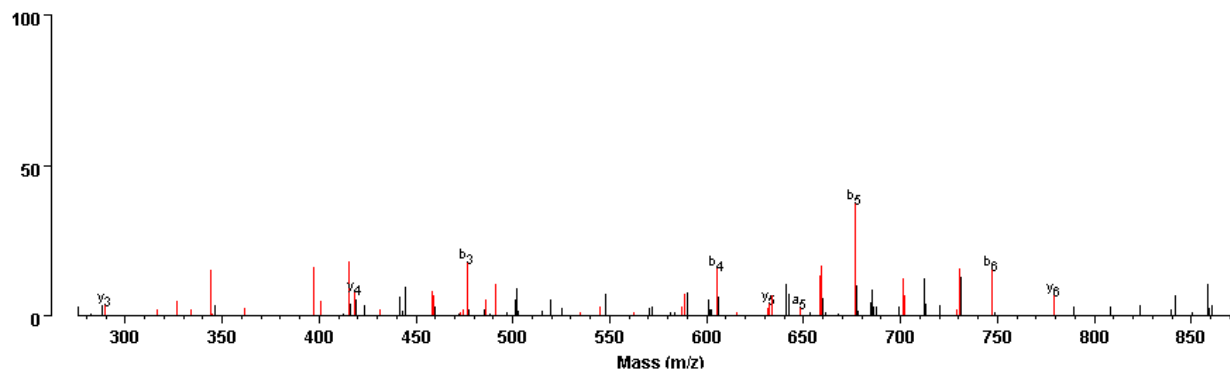


690.6918 3+, (N)KVVDQLFEK(A) Rpn6:K421 to (R)NFKEAAK(L) Rpn7:K225

**K(Alkene)VVDQLFEK<sup>+2</sup>**

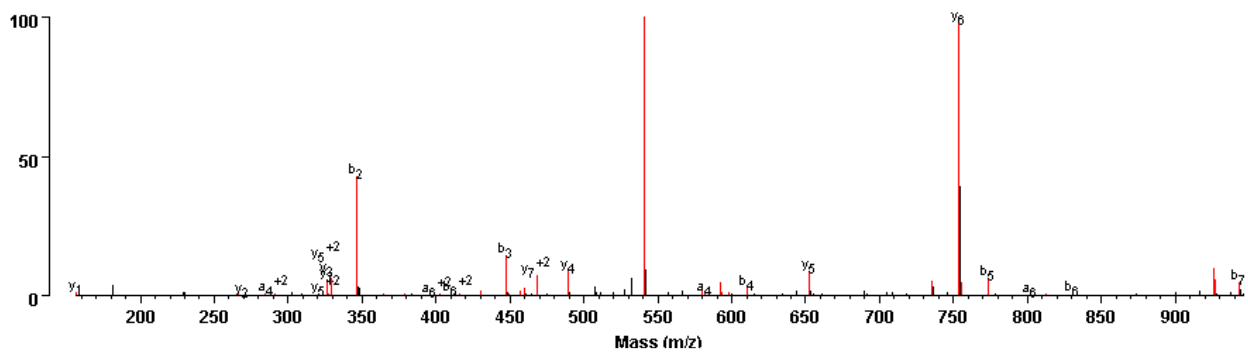


**NFK(Thiol)EAAK**

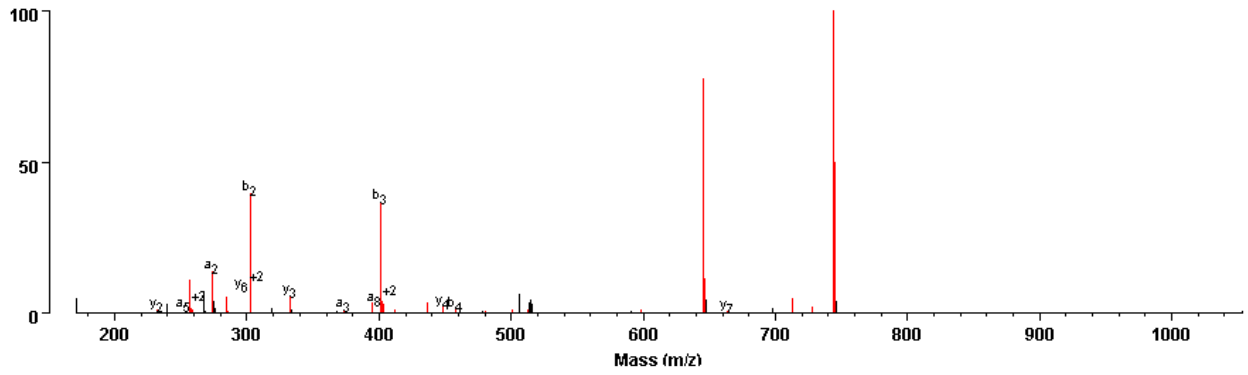


545.5102 4+, (R)YKTTYGIH(C) Rpn7:K211 to (N)SKVGSADTGR(D) Rpn11:K12

**YK(Alkene)TYYGIH<sup>+2</sup>**

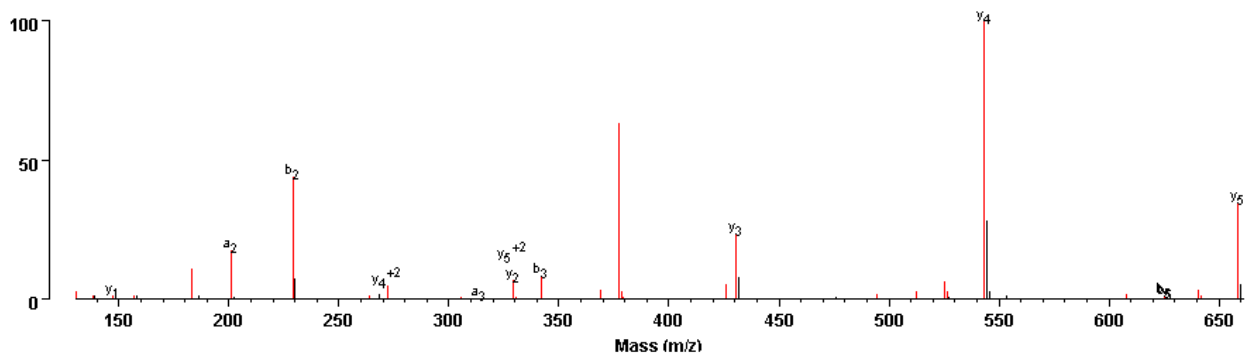


**SK(Thiol)VGSADTGR<sup>+2</sup>**

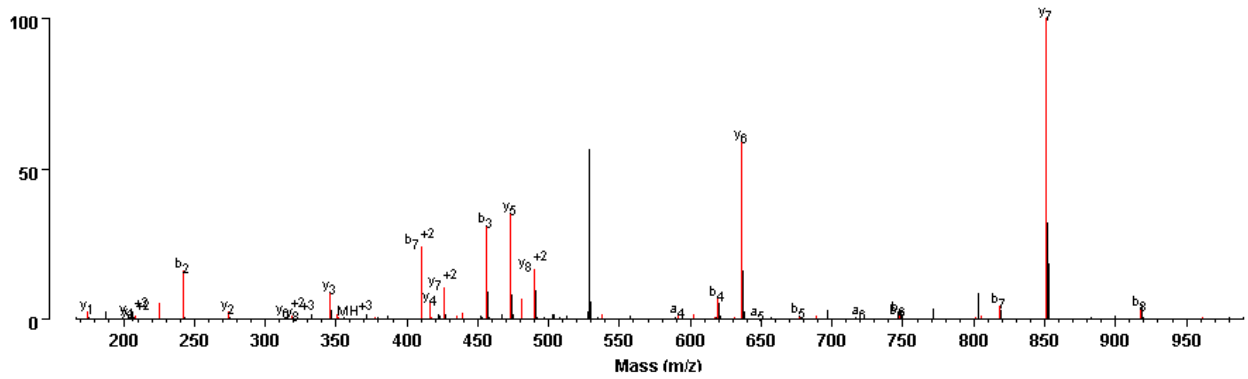


470.7640 4+, (K)LQKYGAAVR(L) Rpn7:K416 to (K)IDLTKK(K) Rpn15/Sem1:K18

**IDLTK(Alkene)K<sup>+2</sup>**

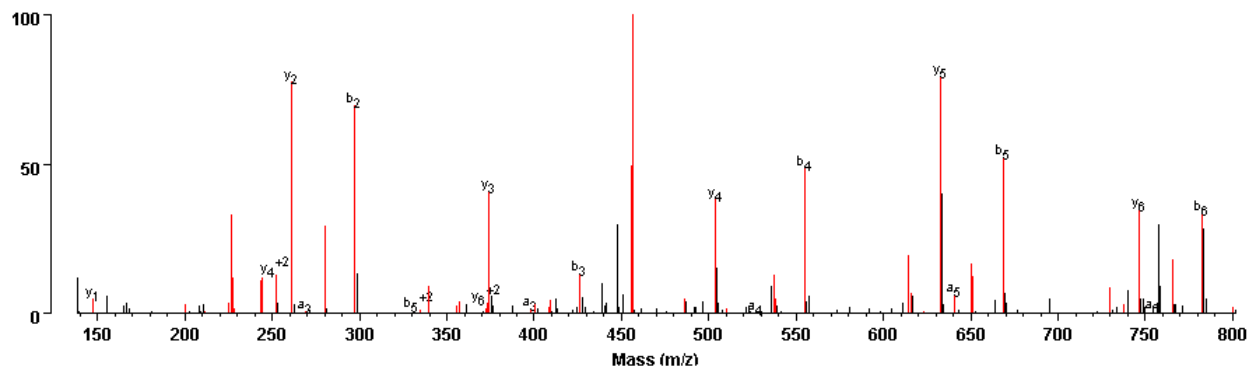


**LQK(Thiol)YGAAVR<sup>+2</sup>**

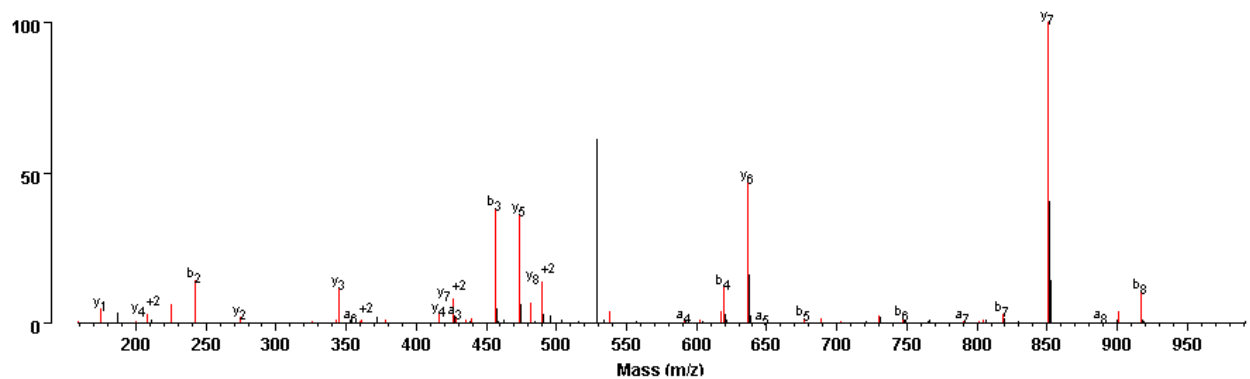


510.0173 4+, (K)LQKYGAAVR(L) Rpn7:K416 to (K)KNEEINK(K) Rpn15/Sem1:K20

**K(Alkene)NEEINK<sup>+2</sup>**

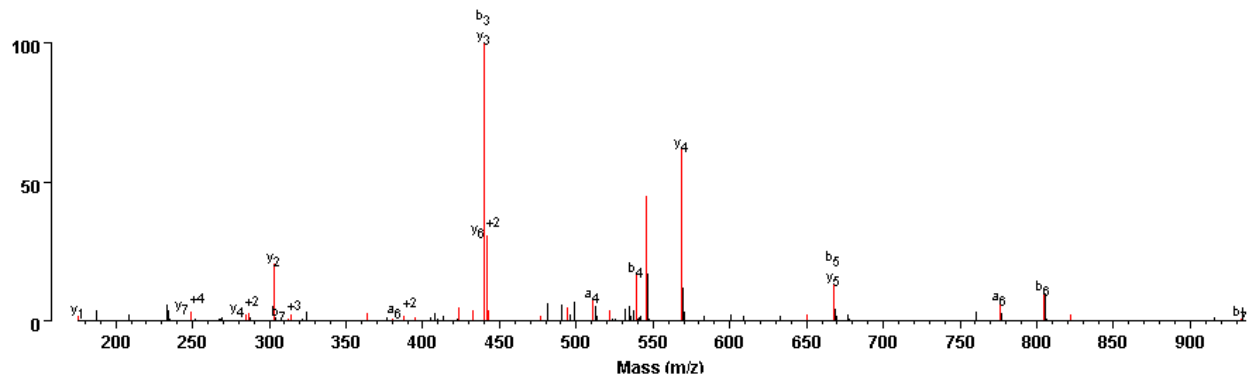


**LQK(Thiol)YGAAVR<sup>+2</sup>**

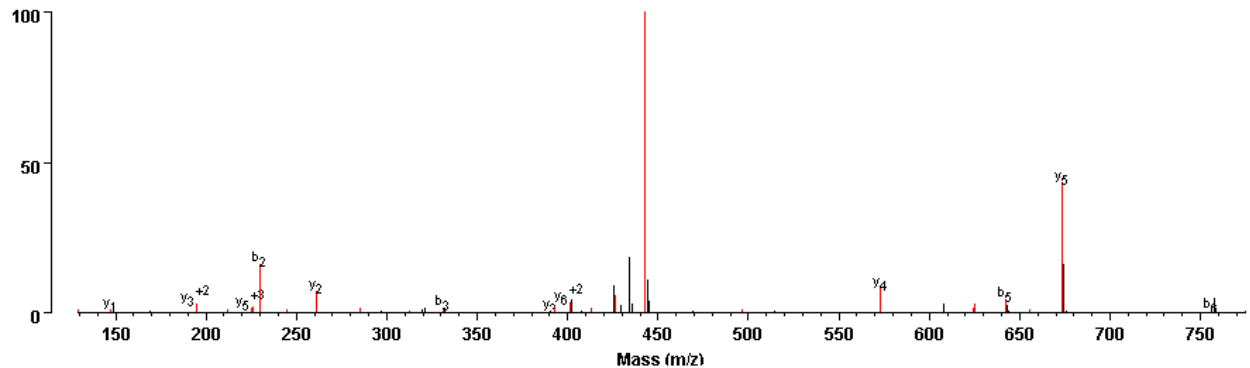


507.2503 4+, (R)TQTKENK(R) Rpn8:K28 to (R)QNKVQHQR(I) Rpn10:K104

### Q(Gln->pyro-Glu)NK(Thiol)VQHQR<sup>+2</sup>

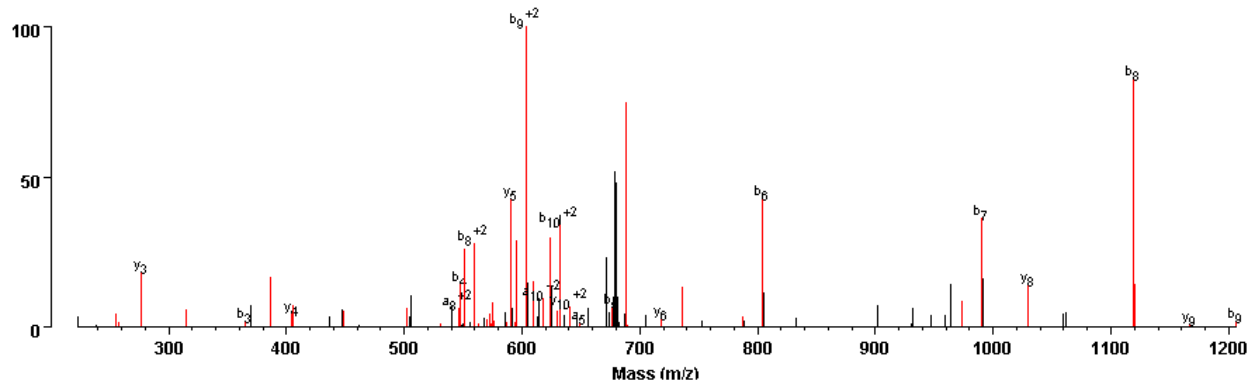


### TQTK(Alkene)ENK<sup>+2</sup>

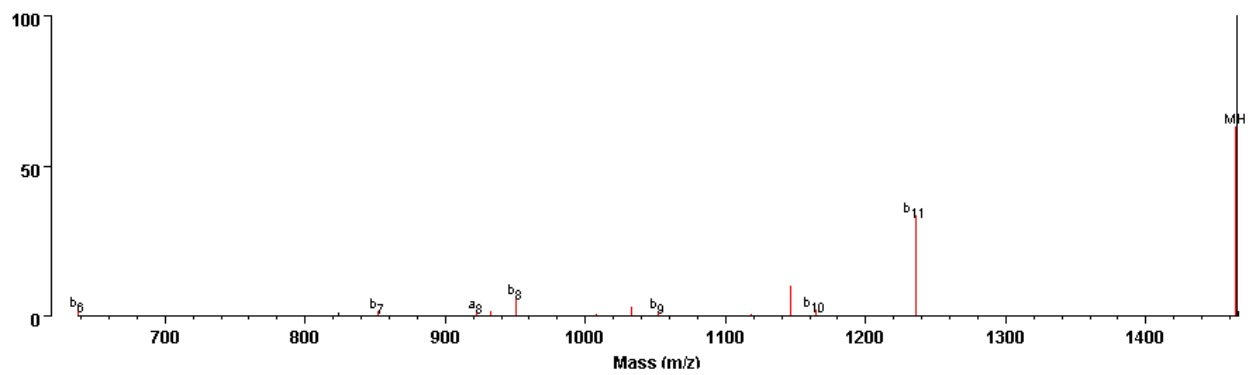


958.8221 3+, (-)-MSLQHEKVTIAPL(V) Rpn8:K7 to (M)NLHKEQWQSG(L) Rpn11:K218

**NLHK(Alkene)EQWQSGL<sup>+2</sup>**

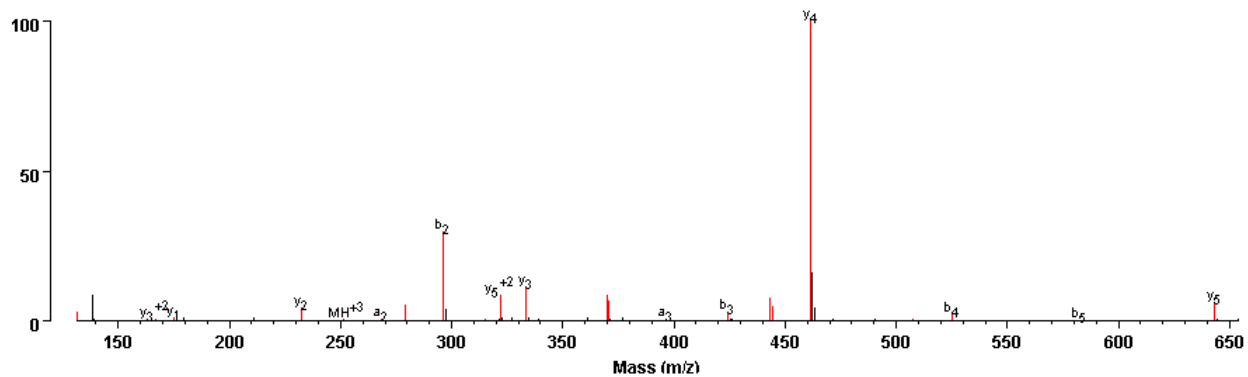


**M(Met-loss+Acetyl)SLQHEK(Thiol)VTIAPL**

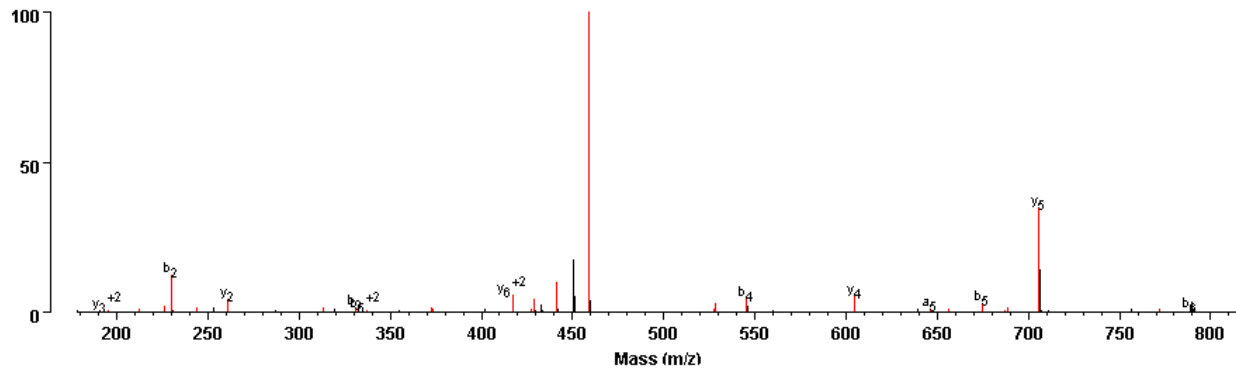


427.7240 4+, (R)TQTKENK(R) Rpn8:K28 to (M)LKQTGR(D) Rpn11:K96

### LK(Alkene)QTGR<sup>+2</sup>



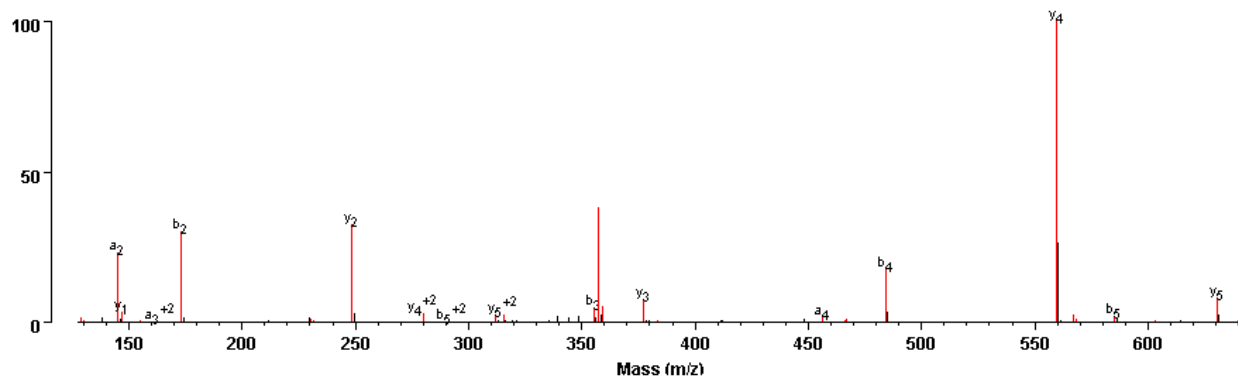
### TQTK(Thiol)ENK<sup>+2</sup>



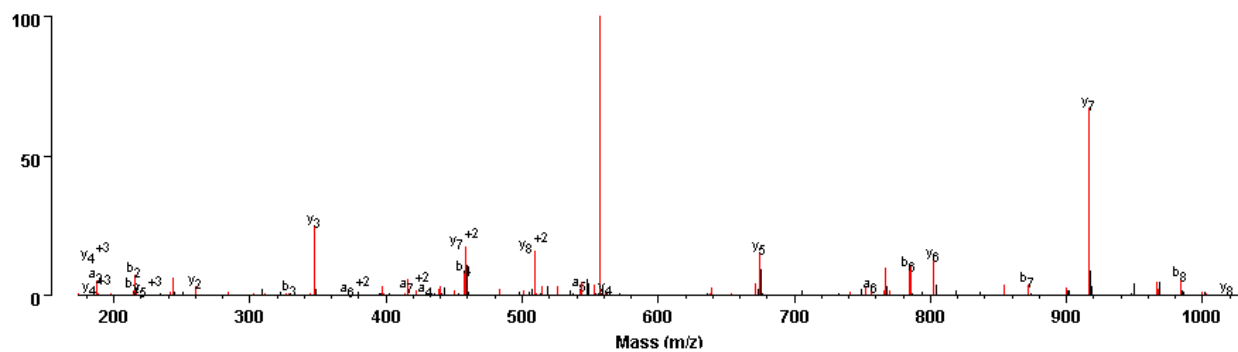


470.5121 4+, (R)LTNQLKSLK(G) Rpn8:K195 to (K)TAKETK(M) Rpn11:K208

### TAK(Alkene)ETK<sup>+2</sup>

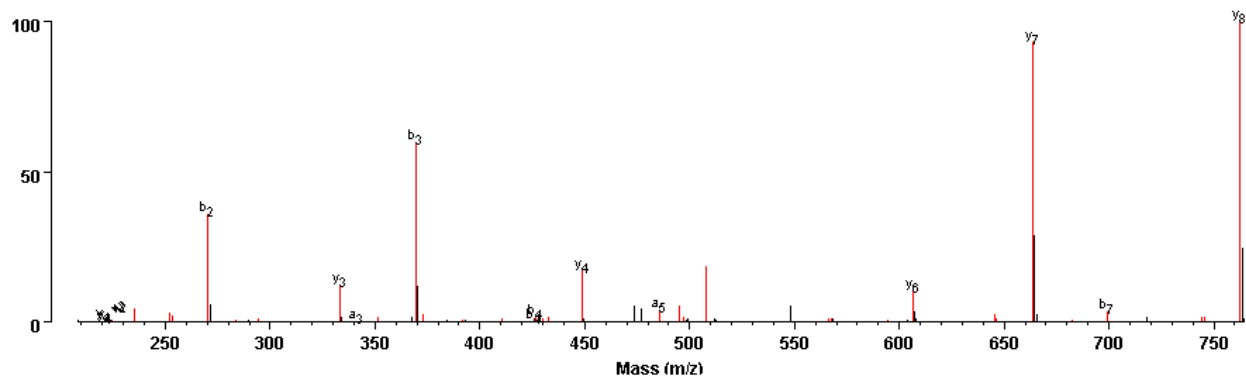


### LTNQLK(Thiol)SLK<sup>+2</sup>

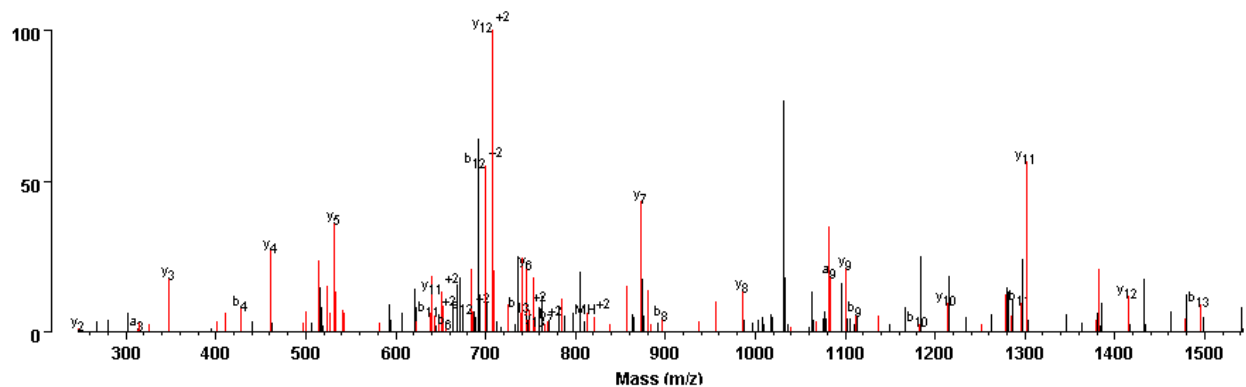


673.3621 4+, (R)INISNNLQKALTVK(T) Rpn8:K263 to (N)SKVGSADTGR(D) Rpn11:K12

**SK(Alkene)VGSADTGR<sup>+2</sup>**

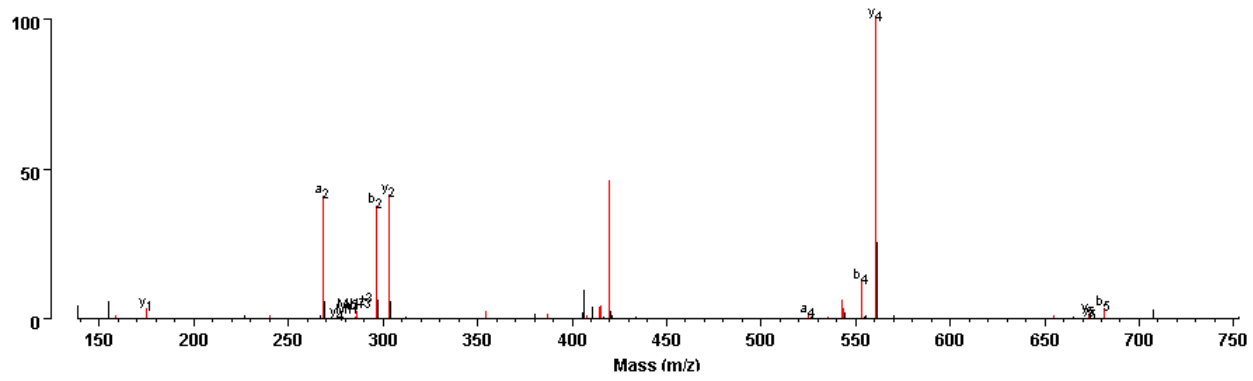


**INISNNLQK(Thiol)ALTVK<sup>+2</sup>**

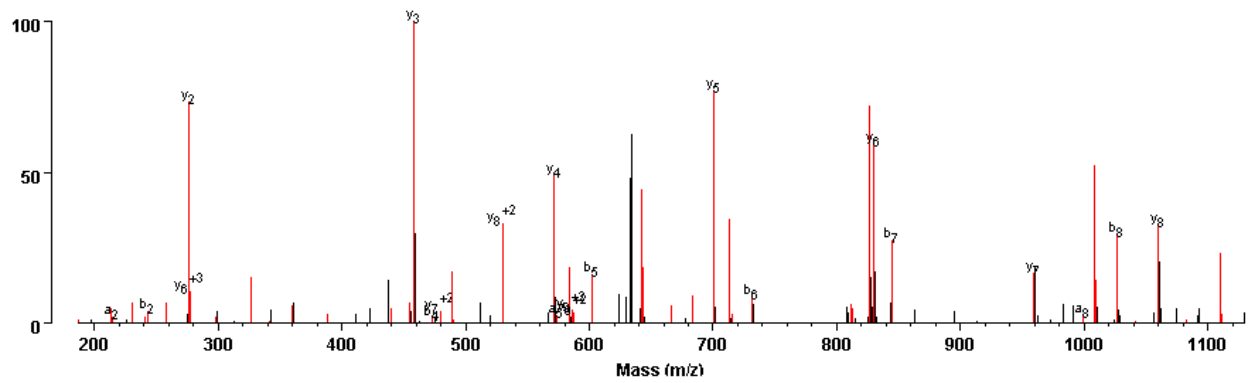


736.0385 3+, (K)KIQEQR(V) Rpn8:K300 to (K)ELTEEELKTR(Y) Rpn11:K267

**K(Alkene)IQEQR<sup>+2</sup>**

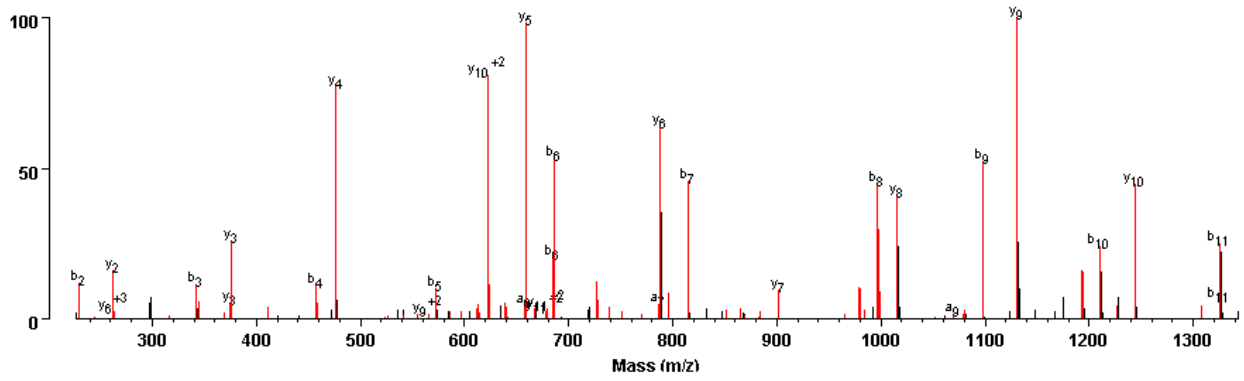


**ELTEEELK(Alkene)TR<sup>+2</sup>**

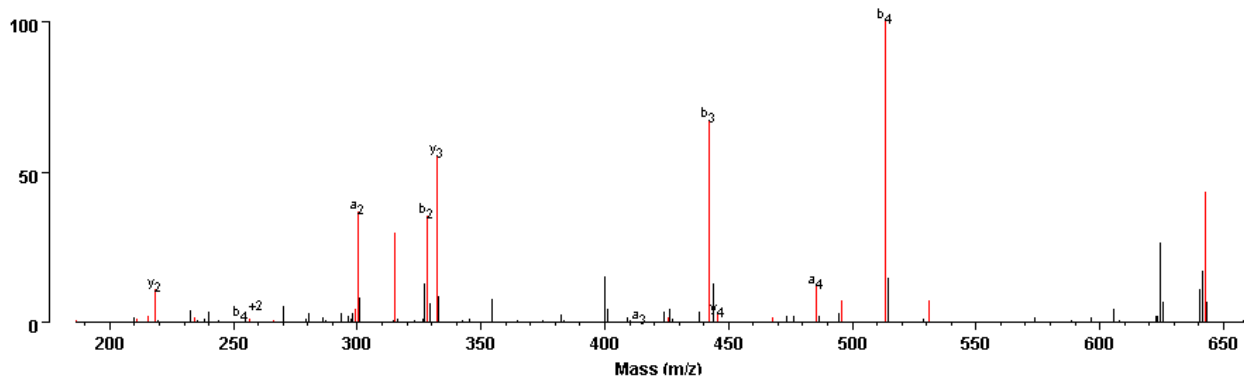


716.7094 3+, (K)KINAK(E) Rpn8:K82 to (R)DLLDDLEKTLDK(K) Rpn9:K155

### DLLDDLEK(Alkene)TLDK<sup>+2</sup>

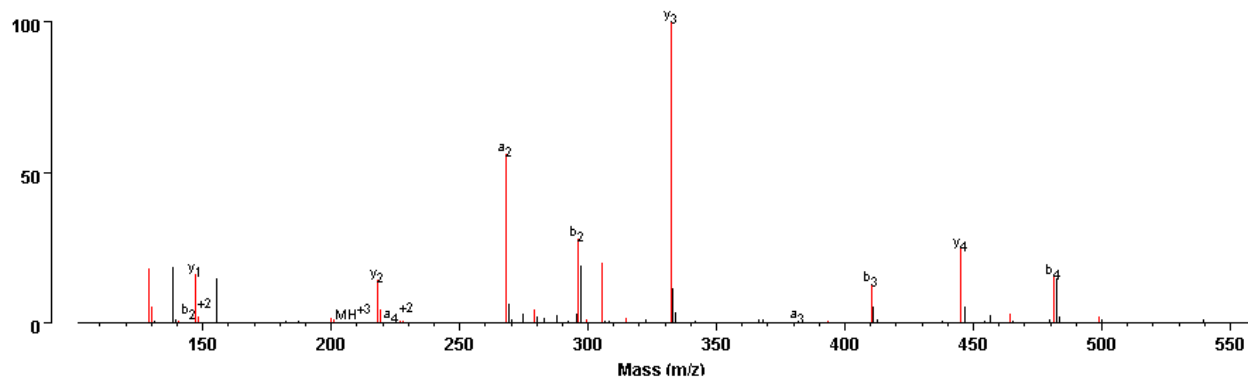


### K(Thiol)INAK

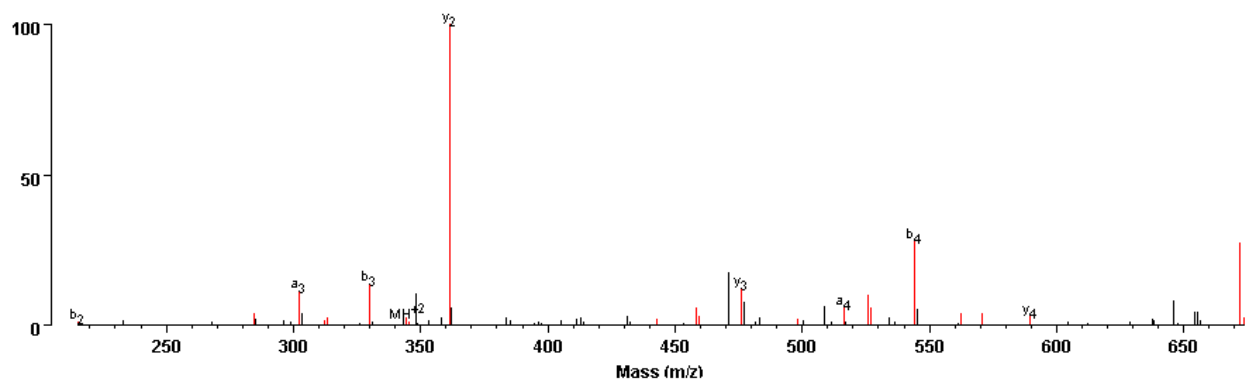


445.5837 3+, (K)KINAK(E) Rpn8:K82 to (K)TLDKK(D) Rpn9:K159

### K(Alkene)INAK<sup>+2</sup>

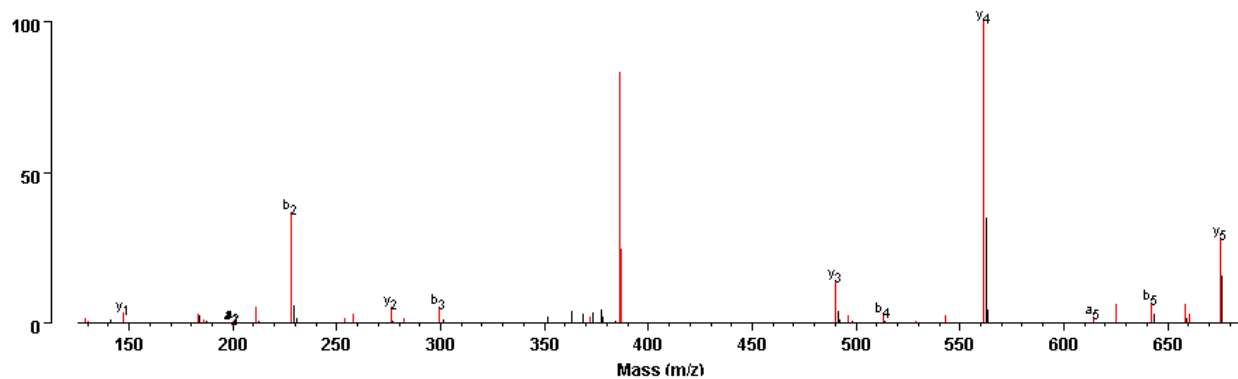


### TLDK(Thiol)K

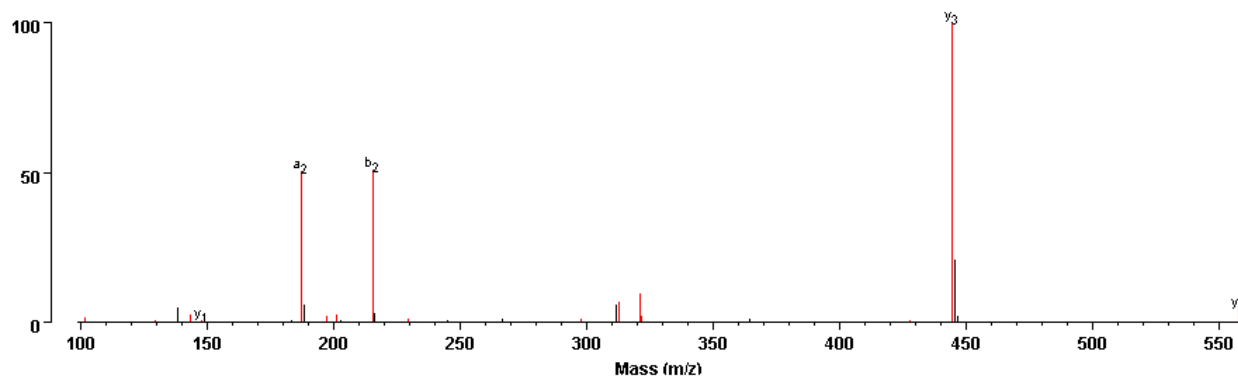


366.7007 4+, (K)INAKEK(L) Rpn8:K86 to (K)TLDKK(D) Rpn9:K159

### INAK(Thiol)EK<sup>2+</sup>

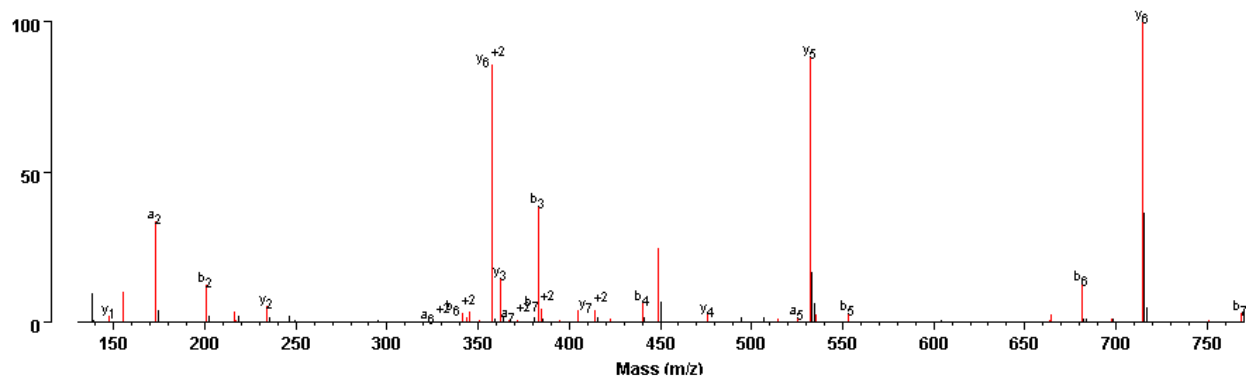


### TLDK(Alkene)K<sup>2+</sup>

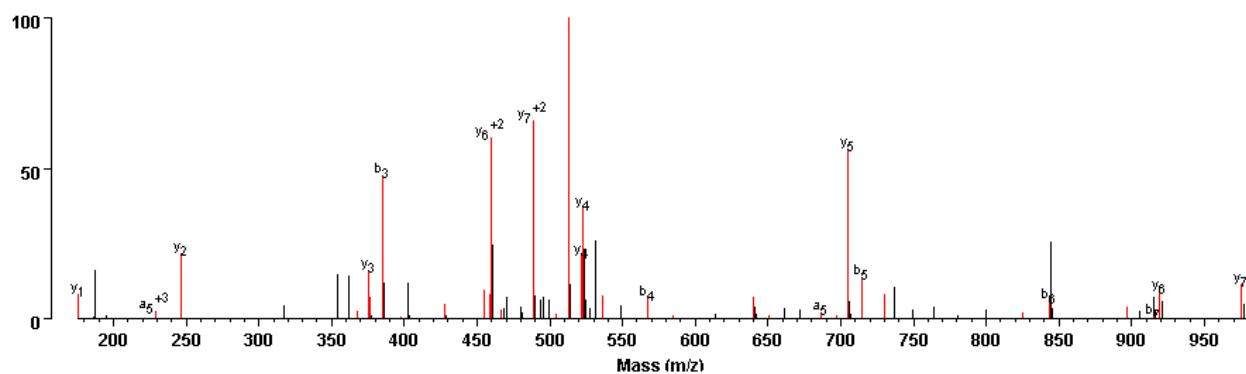


536.2722 4+, (K)SLKGLQSK(L) Rpn8:K198 to (K)LGKKMEAR(G) Rpn9:K382/383

**SLK(Alkene)GLQSK<sup>+2</sup>**

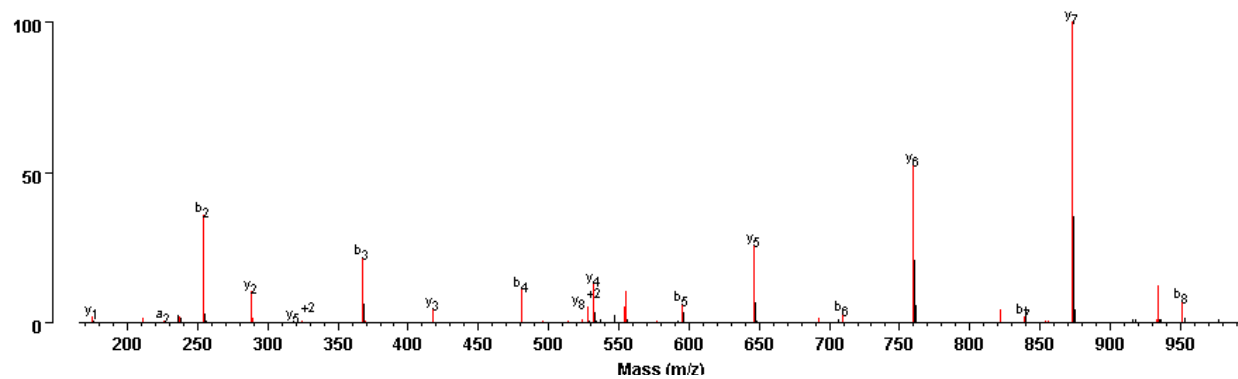


**LGK(Thiol)K(Alkene)M(Oxidation)EAR<sup>+2</sup>**

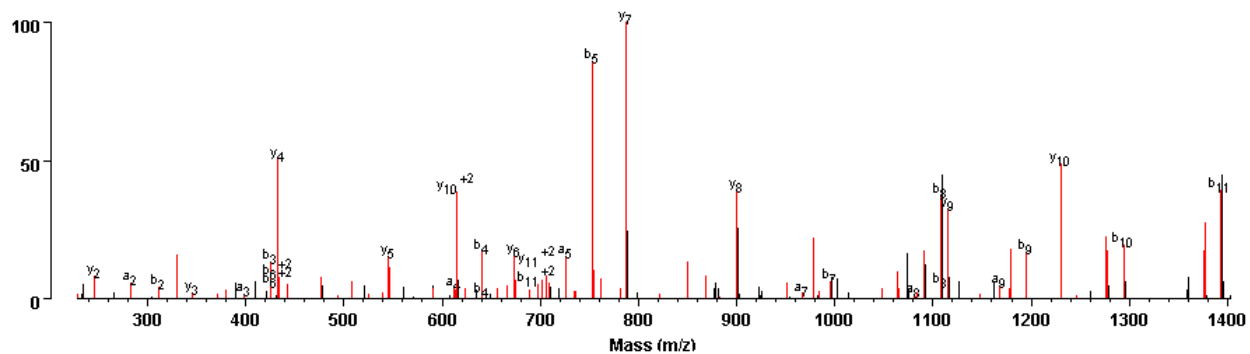


671.6100 4+, (K)FYDKINQLSVVK(Y) Rpn9:K72 to (R)AKLLDNEIR(I) Rpt5:K35

**AK(Alkene)LLDNEIR<sup>+2</sup>**



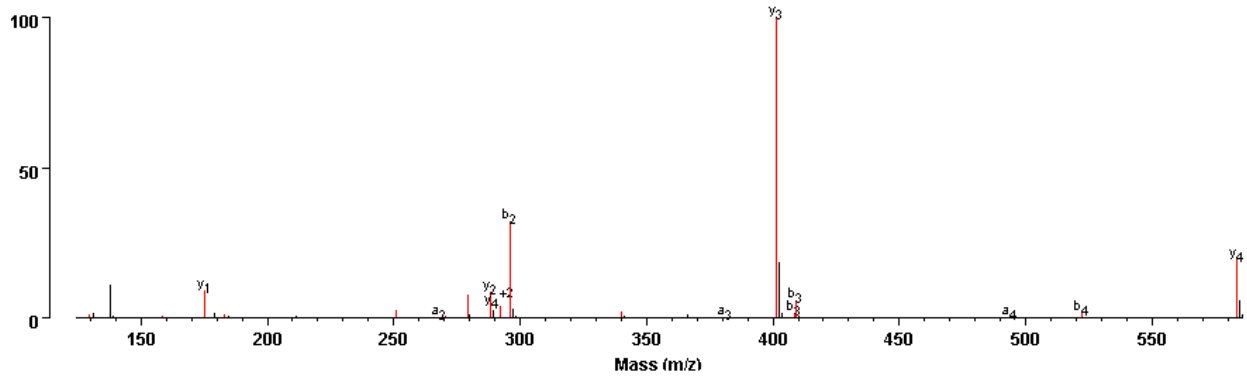
**FYDK(ThioI)INQLSVVK<sup>+2</sup>**



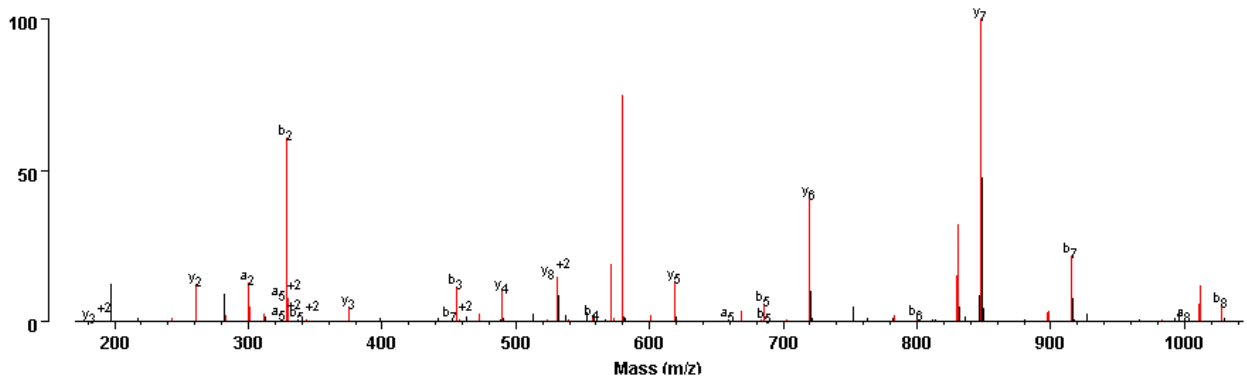


472.7706 4+, (K)LKQTENDLK(D) Rpt1:K50 to (K)LKLLR(M) Rpt2:K58

### LK(Alkene)LLR<sup>+2</sup>

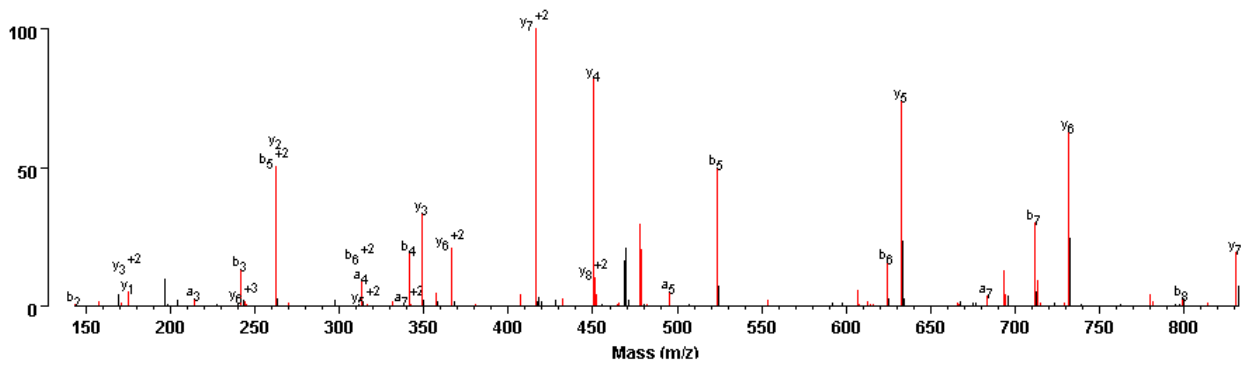


### LK(Thiol)QTENDLK<sup>+2</sup>

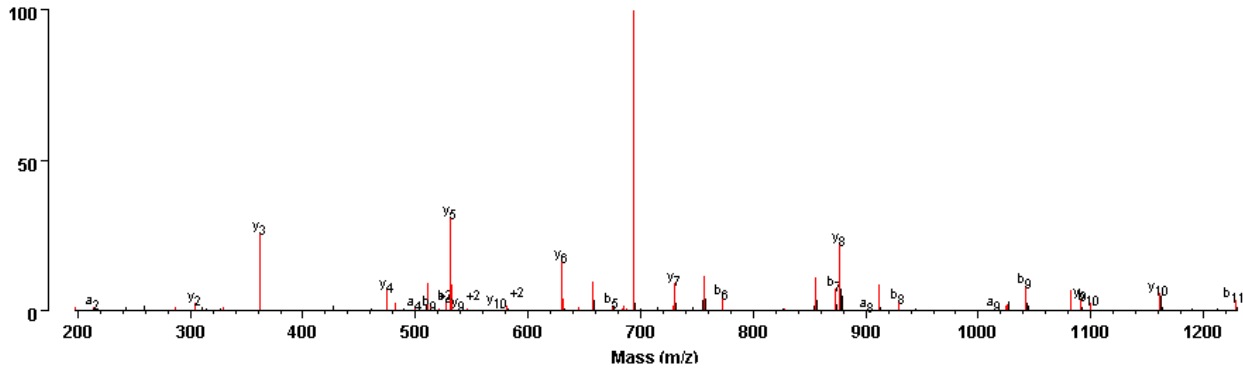


598.8314 4+, (K)QIAK(FVVGLGER(V) Rpt1:K154 to (K)AAVVK(TSSR(Q) Rpt5:K120

**AAVVK(Alkene)TSSR<sup>+2</sup>**

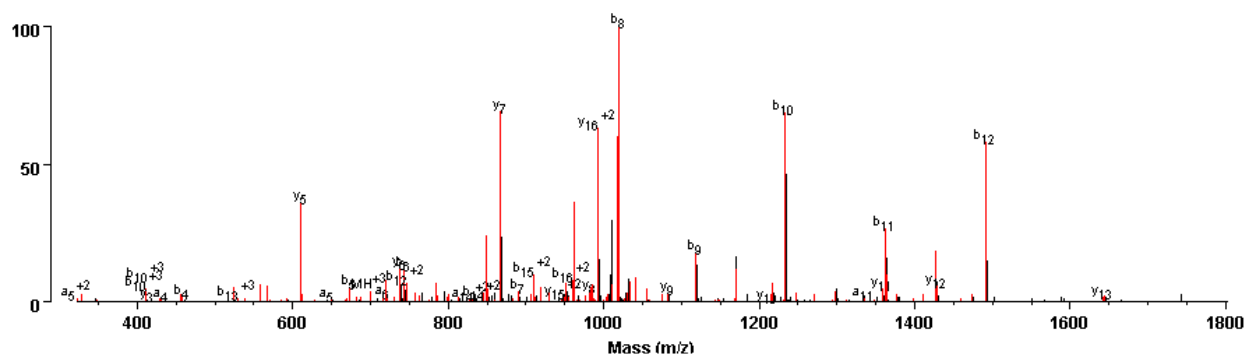


**QIAK(Thio)FVVGLGER<sup>+2</sup>**

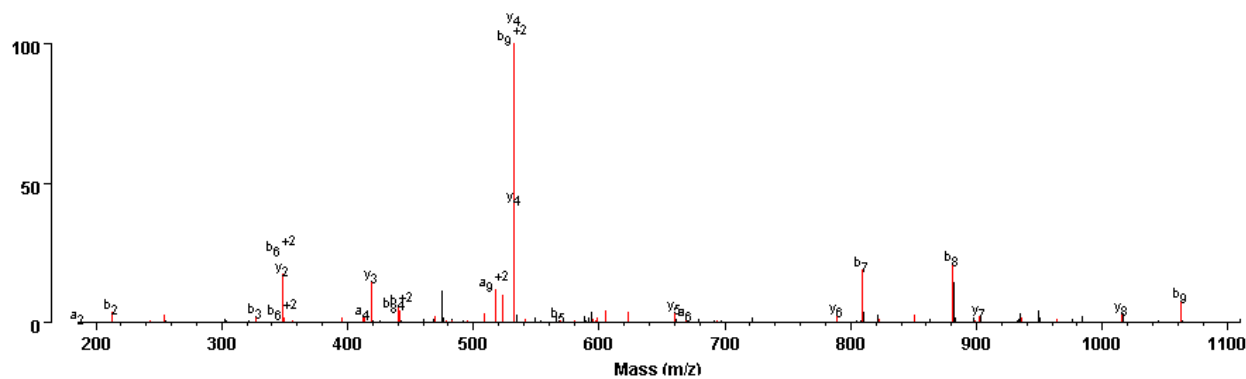


836.9233 4+, (Y)VINLKQIAKF(V) Rpt1:K154 to (F)DSRVKAMEVDEKPTETY(S) Rpt5:K168

**DSRVK(Thiol)AM(Oxidation)EVDEKPTETY<sup>+2</sup>**

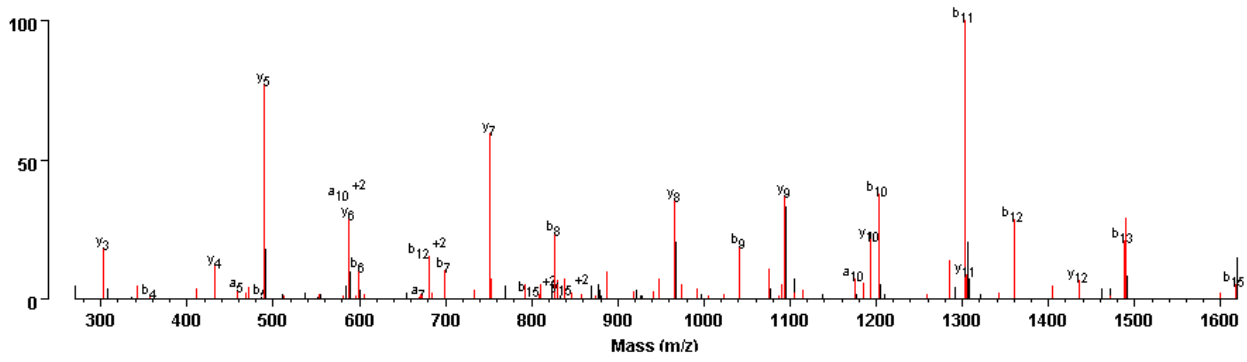


**VINLKQIAK(Alkene)F<sup>+2</sup>**

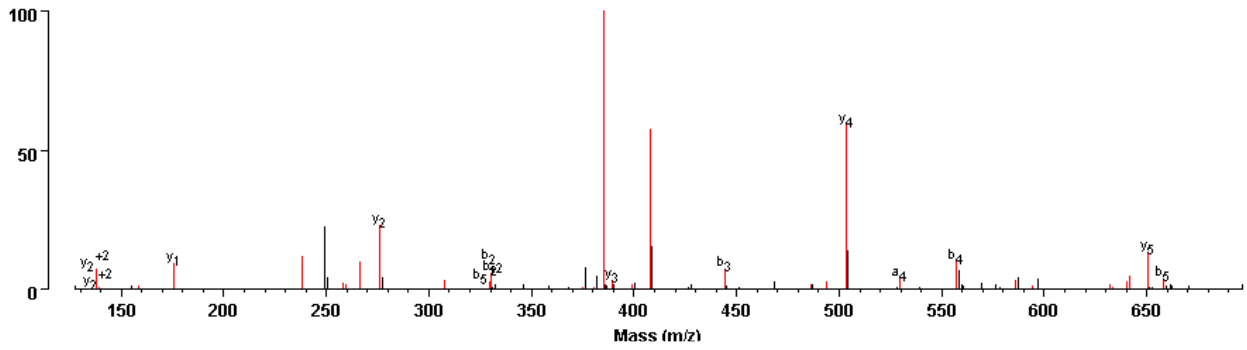


660.8444 4+, (R)VIGSELVQKYVGEGAR(M) Rpt1:K282 to (R)KMNLTR(G) Rpt6:K334

**VIGSELVQK(ThioI)YVGEGAR<sup>+2</sup>**

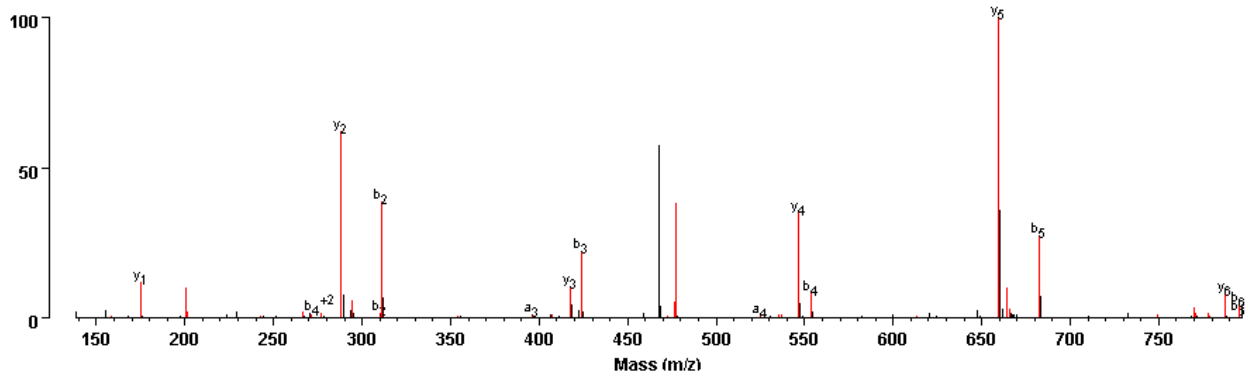


**K(Alkene)M(Oxidation)NLTR<sup>+2</sup>**

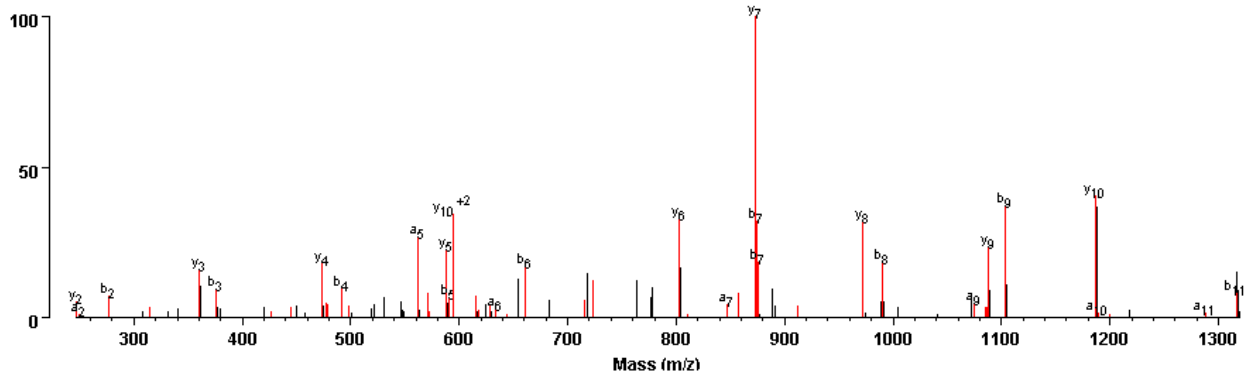


613.0807 4+, (K)KQLEEIR(G) Rpt2:K94 to (K)YIVDVAKDINVK(D) Rpt6:K100

**K(Alkene)QLEEIR<sup>+2</sup>**

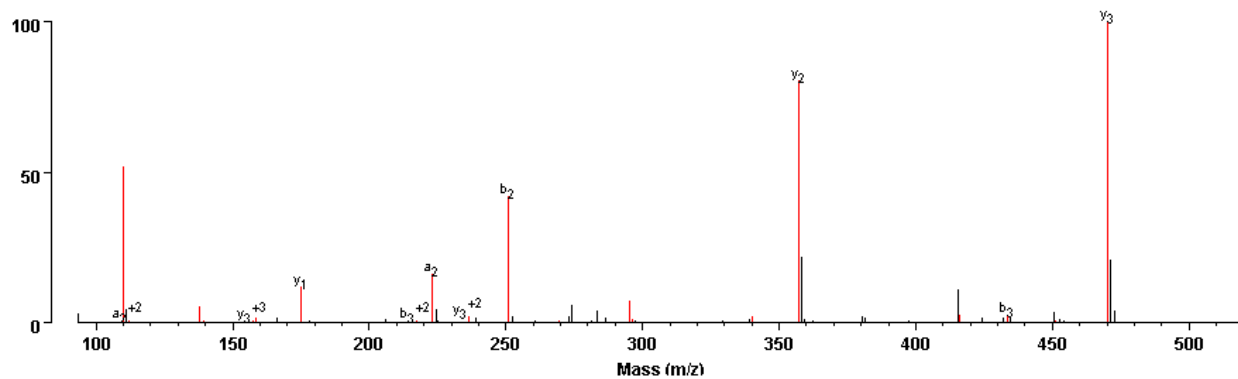


**YIVDVAK(Thiol)DINVK<sup>+2</sup>**

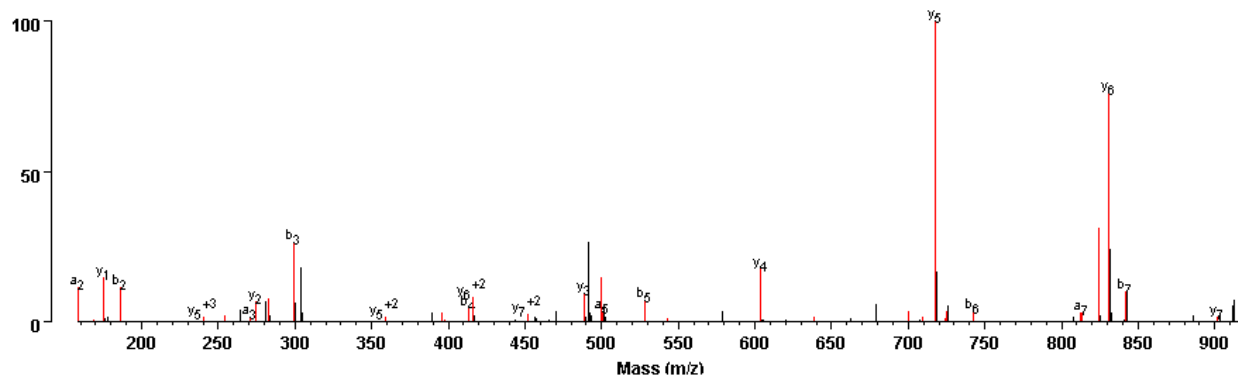


410.7231 4+, (R)HLKR(E) Rpt3:K76 to (R)NALNDKVR(F) Rpt6:K54

### HLK(Alkene)R<sup>+2</sup>

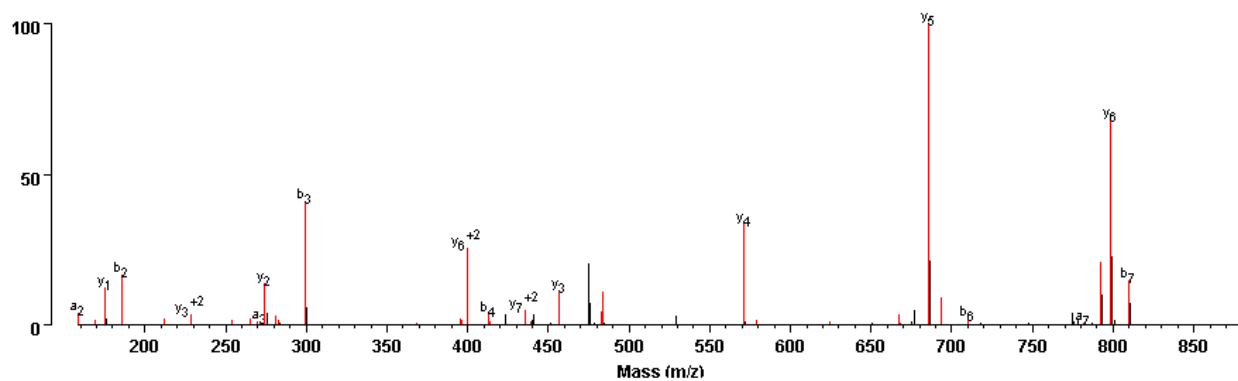


### NALNDK(Thiol)VR<sup>+2</sup>

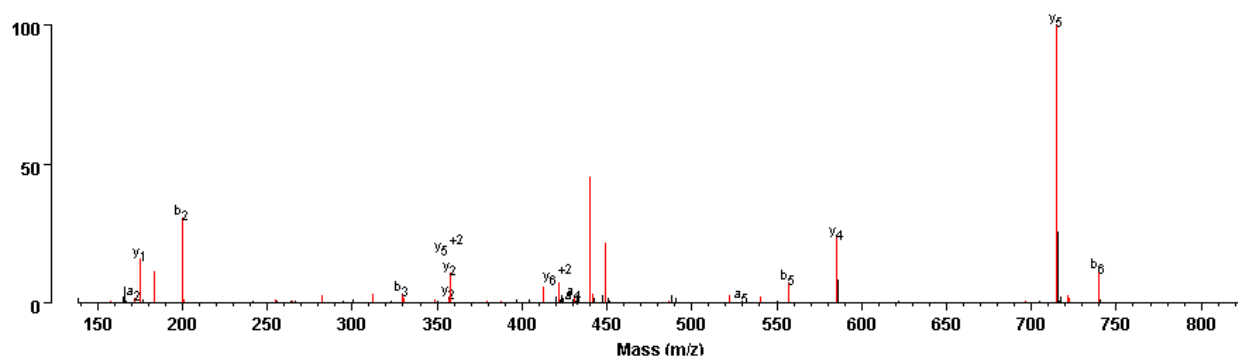


649.3320 3+, (R)AQEEVKR(I) Rpt3:K87 to (R)NALNDKVR(F) Rpt6:K54

### NALNDK(Alkene)VR<sup>+2</sup>

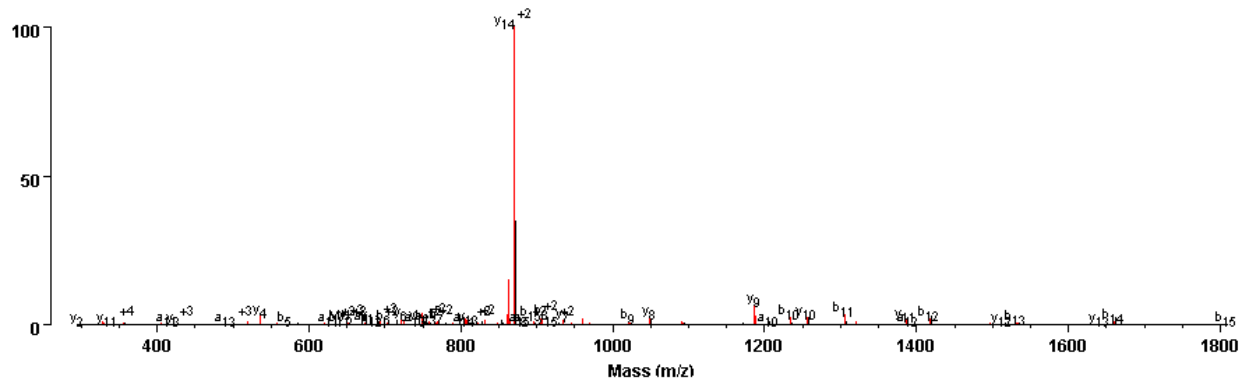


### AQEEVK(Alkene)R<sup>+2</sup>

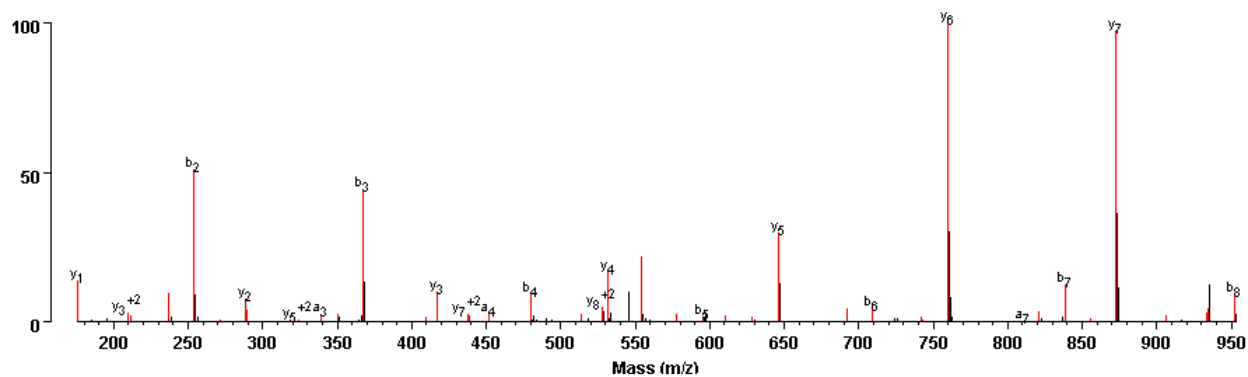


774.8915 4+, (R)VDPEQEAHNKALNQFK(R) Rpt4:K55 to (R)AKLLDNEIR(I) Rpt5:K35

### VDPEQEAHNK(ThioI)ALNQFK<sup>+2</sup>



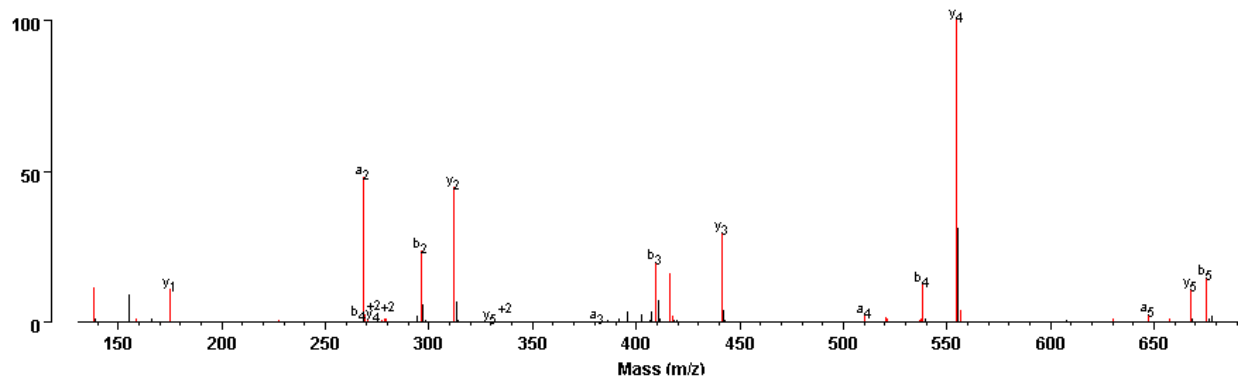
### AK(Alkene)LLDNEIR<sup>+2</sup>



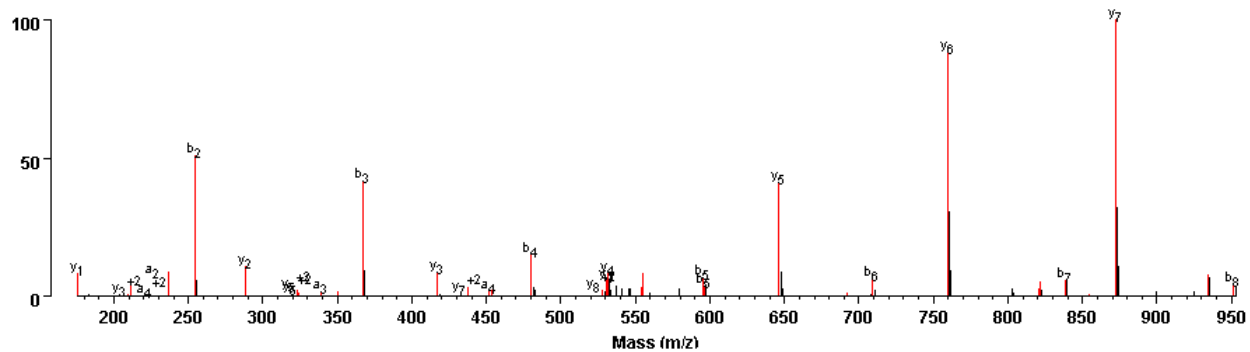


506.7792 4+, (R)KLEHR(R) Rpt4:K63 to (R)AKLLDNEIR(I) Rpt5:K35

### K(Alkene)LLEHR<sup>+2</sup>

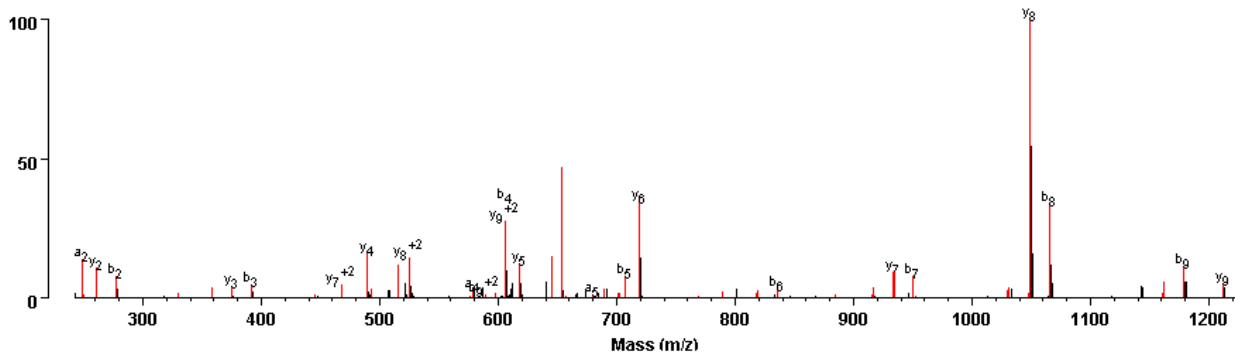


### AK(Alkene)LLDNEIR<sup>+2</sup>

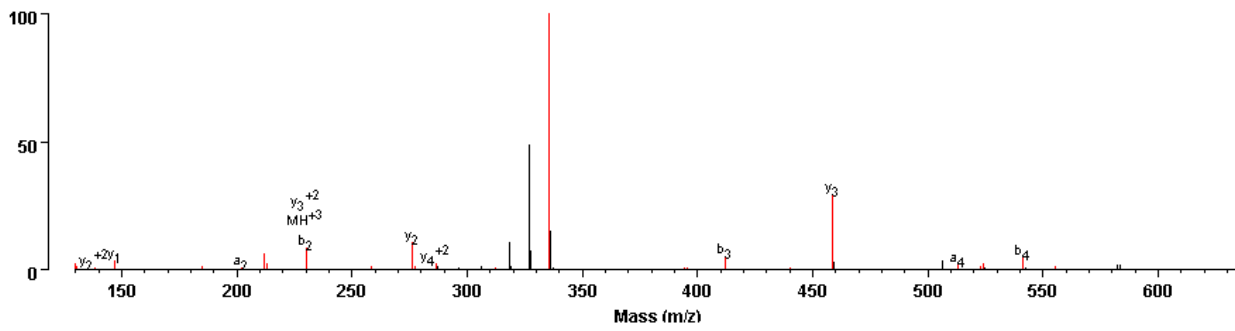


507.9928 4+, (K)LYDKTENDIK(A) Rpt4:K90 to (K)DNKEK(I) Rpt5:K66

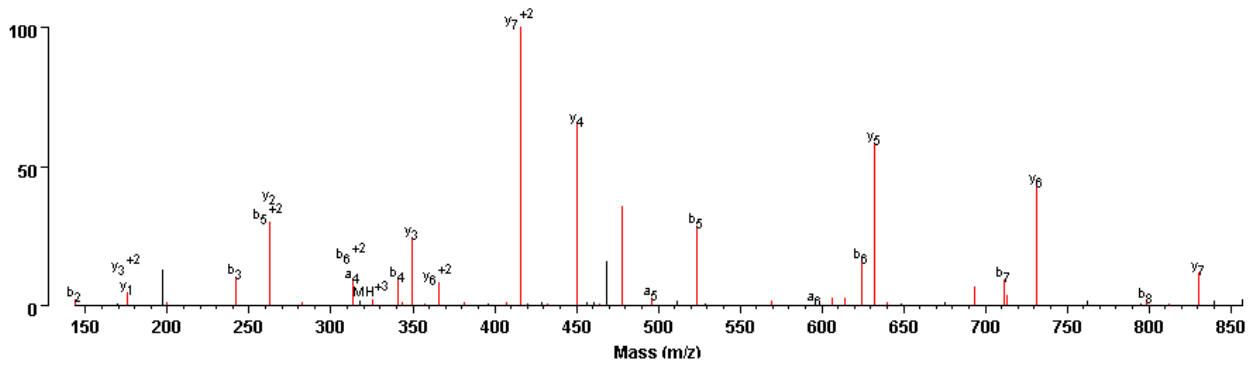
### LYDK(Thiol)TENDIK<sup>+2</sup>



### DNK(Alkene)EK<sup>+2</sup>



### AAVVK(Alkene)TSSR<sup>+2</sup>



### YIVK(Thiol)ASSGPR<sup>+2</sup>

