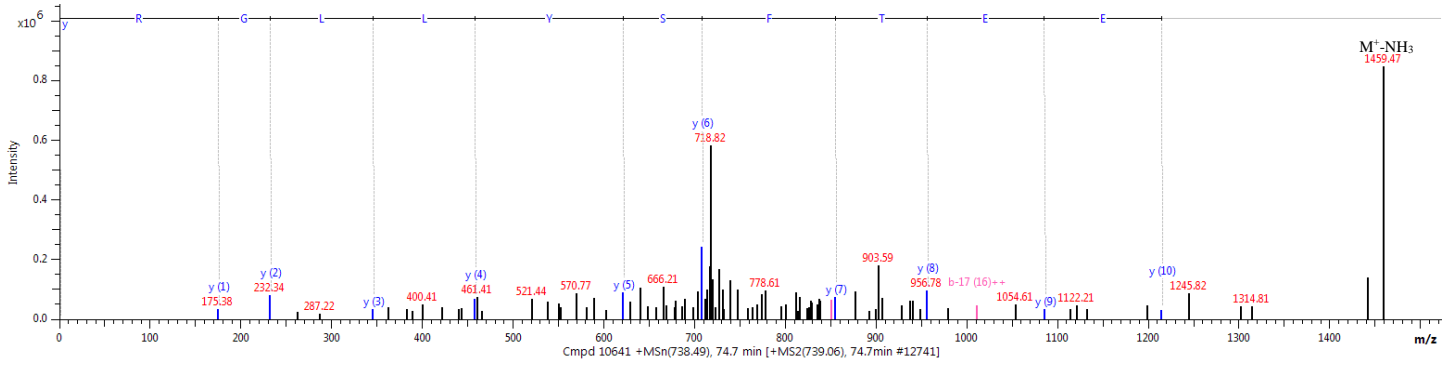


## Supplemental Figure S2: Supplemental Tandem MS/MS Spectra

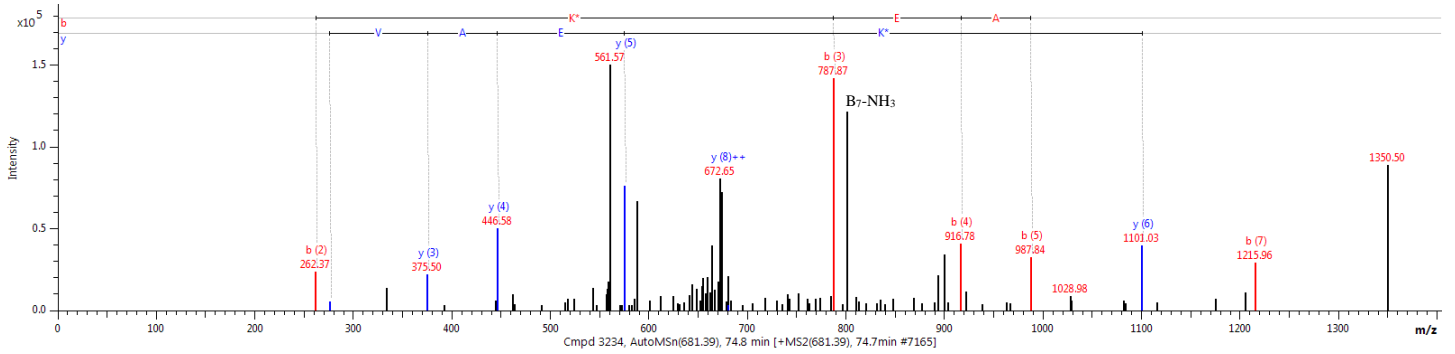
### SV PF peptide adducts identified

#### 1. Cytosolic Arginase acrolein adduct (LGIGKVMEEFYSYLLGR)

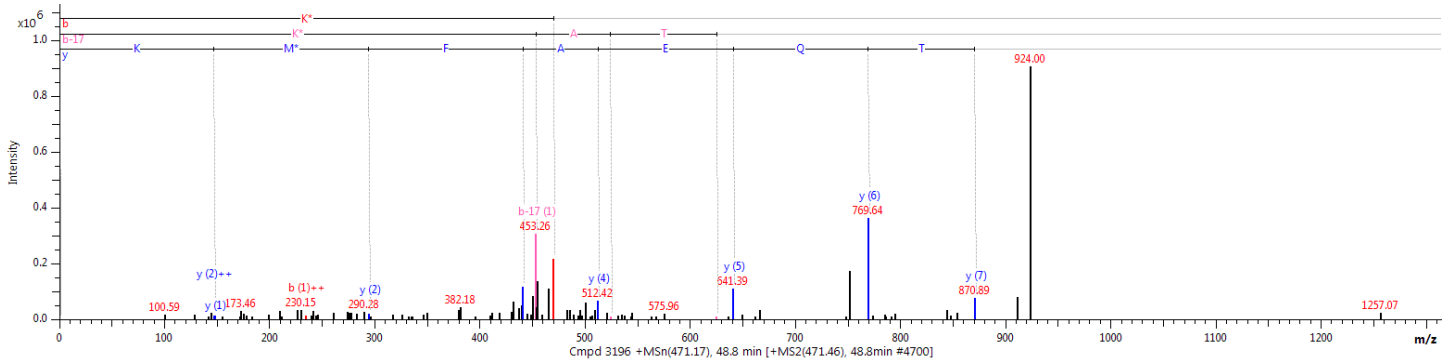


### SV EtOH peptide adducts identified

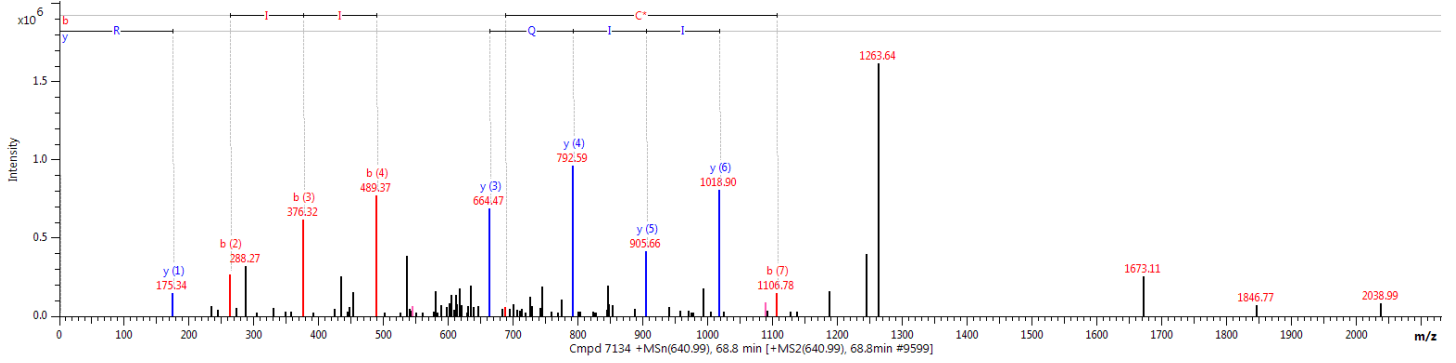
#### 1. Cytosolic ACOX2 4-ONE adduct (NFKEAVEK)



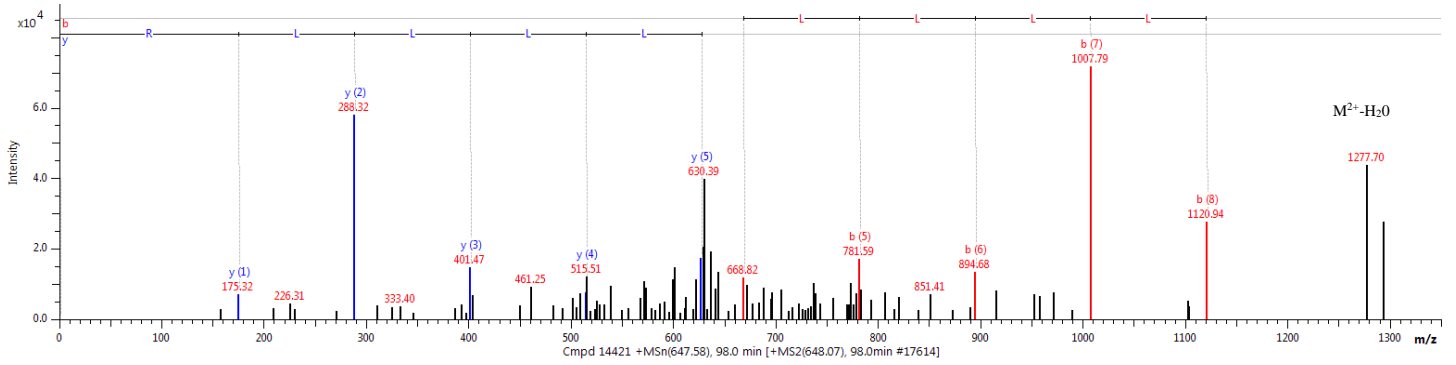
#### 2. Cytosolic Aldolase B hexenaldehyde adduct (KATQEAFMK)



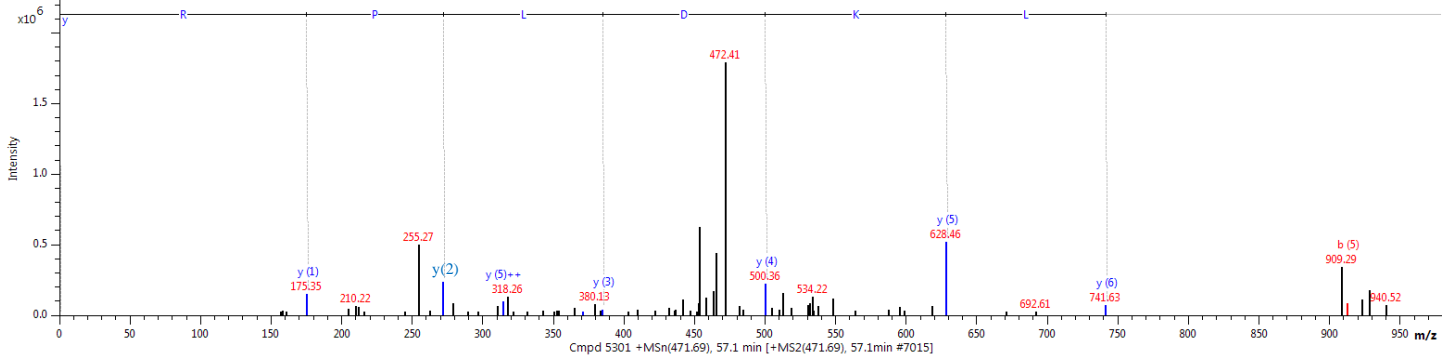
### 3. Cytosolic Caspase 14 MDA adduct (VYIIQACR)



### 4. Cytosolic CX038 acrolein adduct (AGHCLLLR)

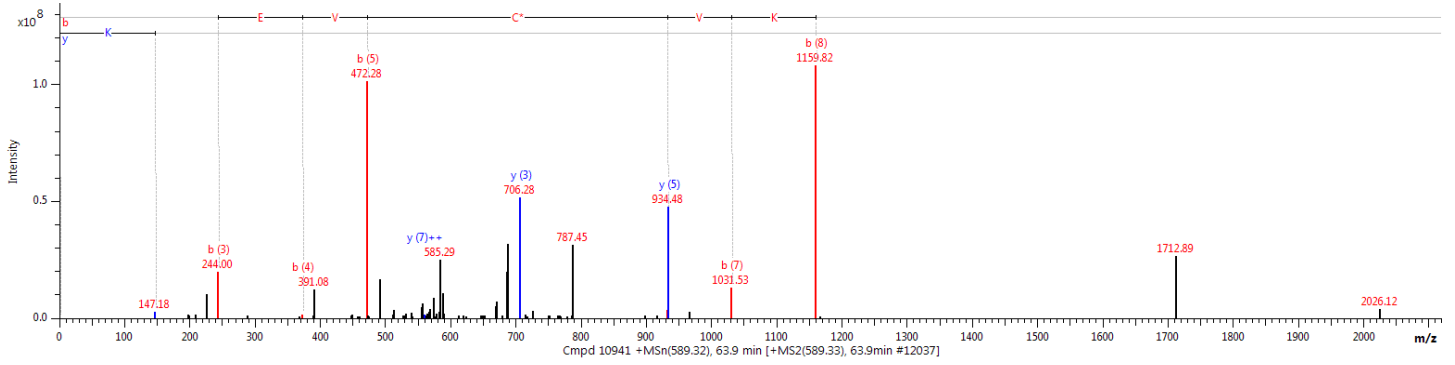


### 5. Cytosolic PYC hexenaldehyde adduct (SKVLKDLPR)

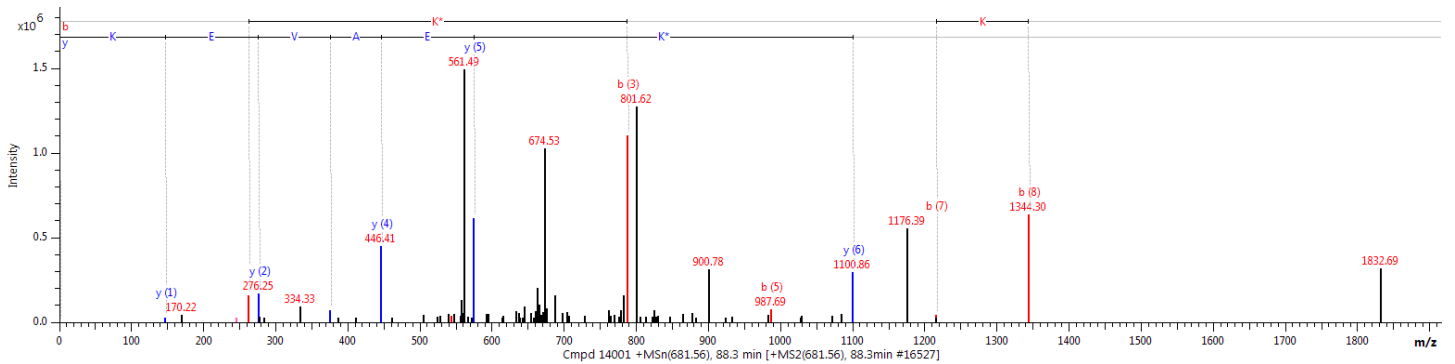


# GSTA4<sup>-/-</sup> PF Peptide Adducts Identified

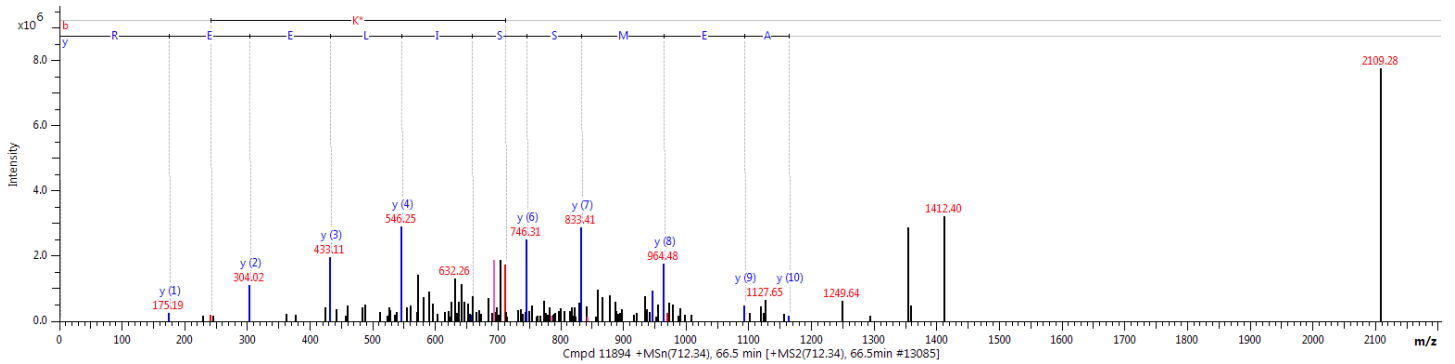
## 1. Mitochondrial ACSL hexenaldehyde adduct (GEGEVCK)



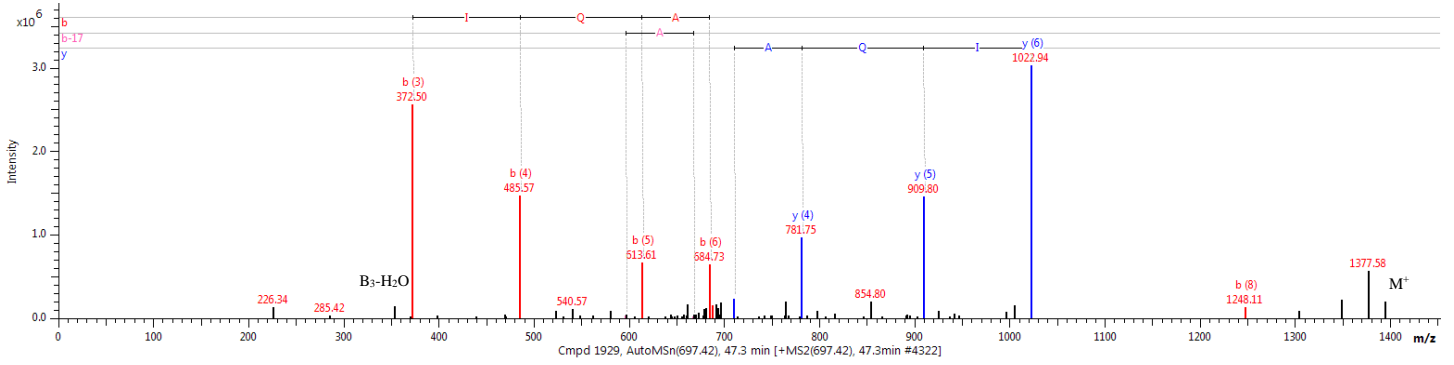
## 2. Cytosolic ACOX2 4-ONE adduct (NFKEAVEK)



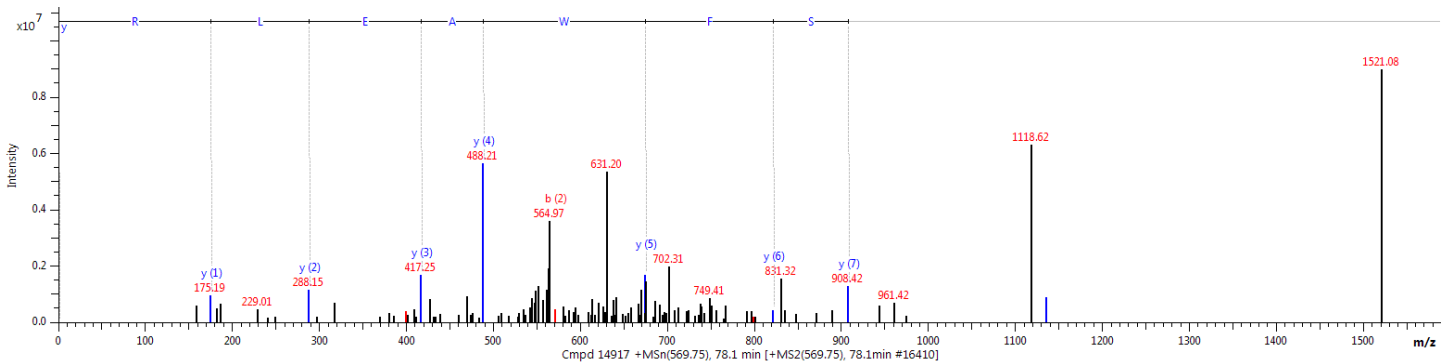
## 3. Mitochondrial ATPA hexenaldehyde adduct (LQKTGTAEMSSILEER)



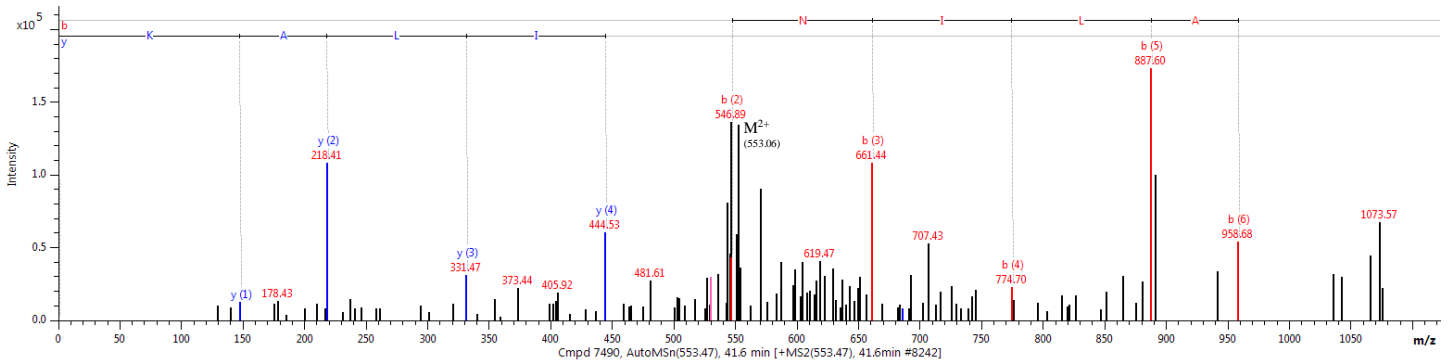
#### 4. Mitochondrial AURKB hexenaldehyde adduct (EIEIQAHLK)



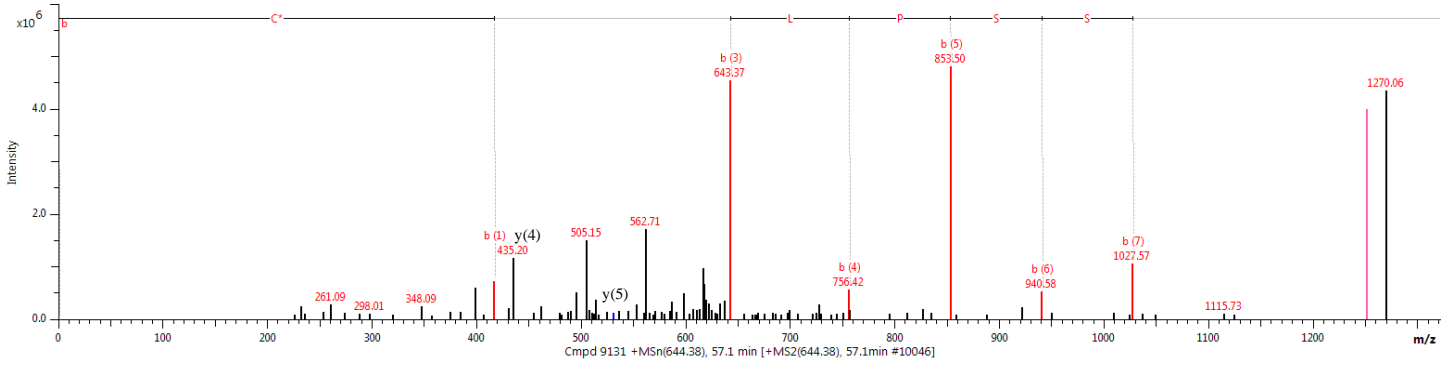
#### 5. Mitochondrial CES1D pentenaldehyde adduct (DKEVFWAELR)



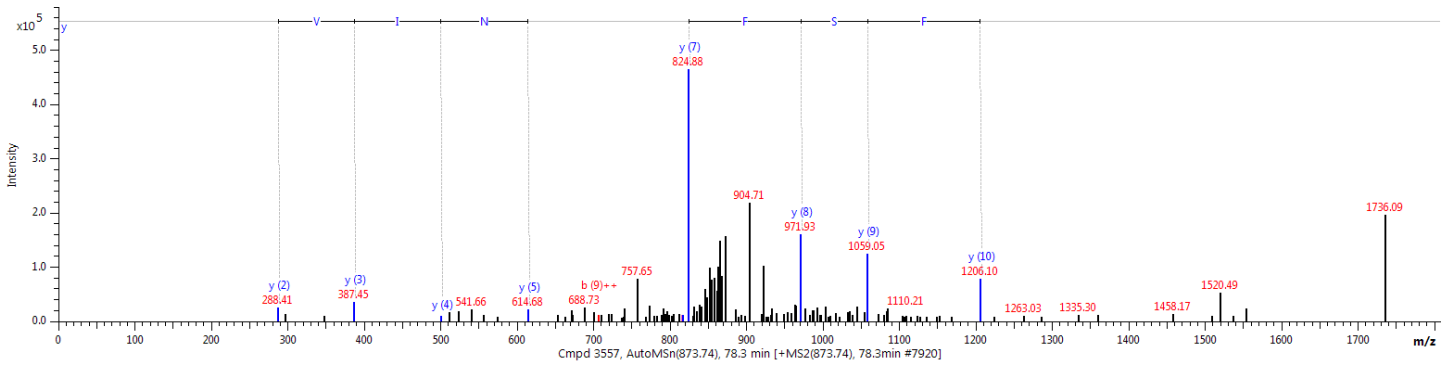
#### 6. Microsomal HLF MDA adduct (CKNILAK)



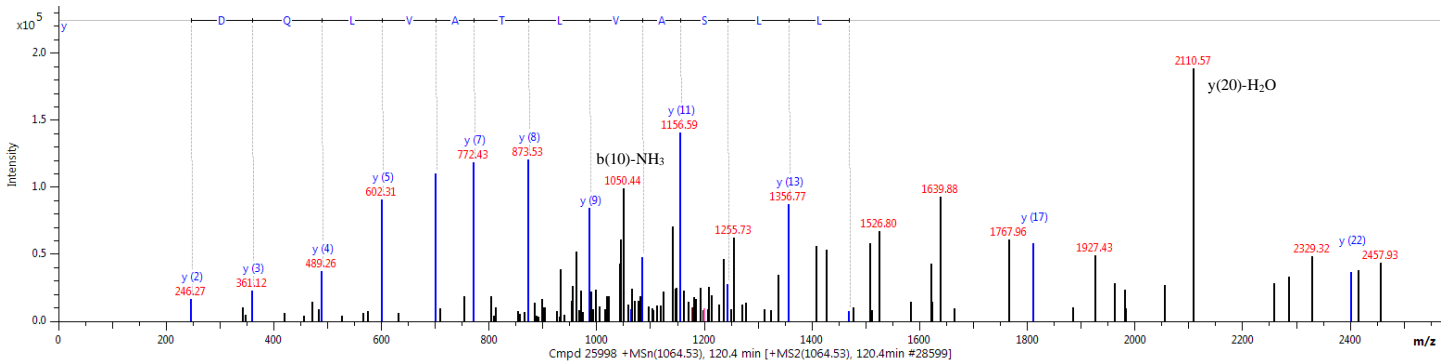
### 7. Mitochondrial K126B crotonaldehyde adduct (CELPSSLK)



### 8. Mitochondrial P20D1 octenaldehyde adduct (KTMKLLANEFSPINIVLR)

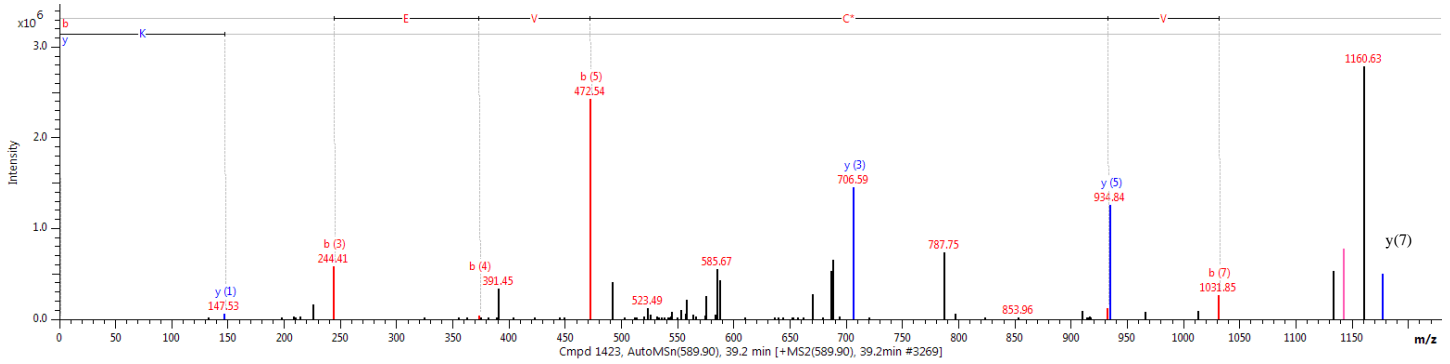


### 9. Mitochondrial TH1KB crotonaldehyde adduct (ASRGCFKDTTPDELLSAVLTAVLQDVK)

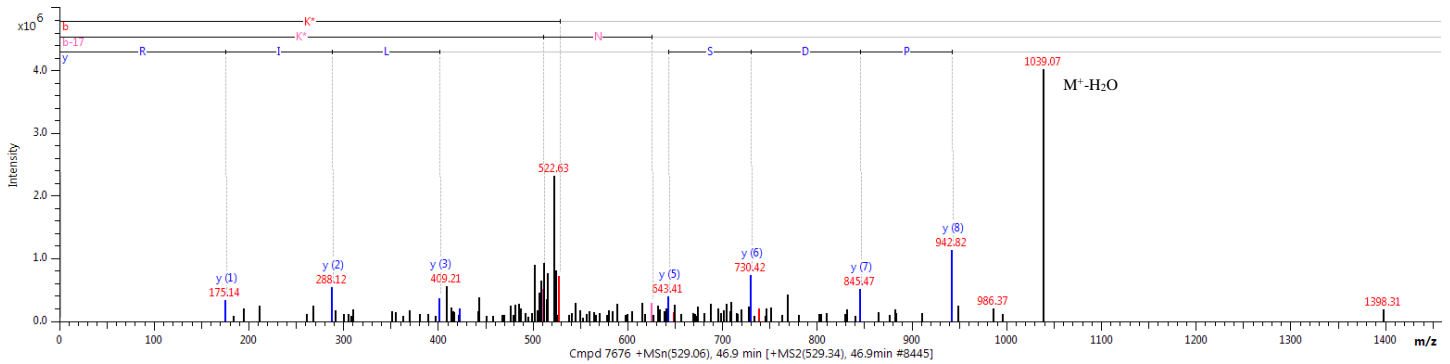


# GSTA4-/- EtOH peptide adducts identified

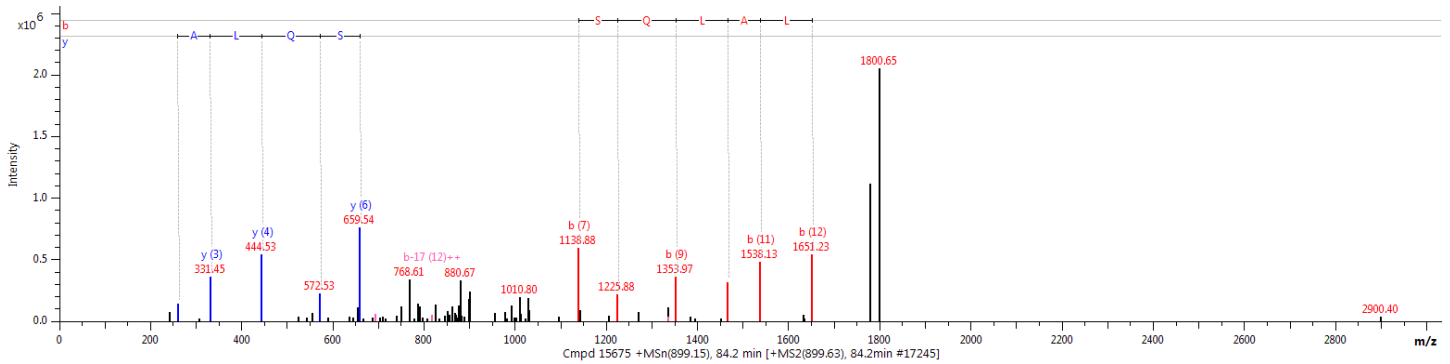
## 1. Mitochondrial ACSL HHE adduct (GEGEVCK)



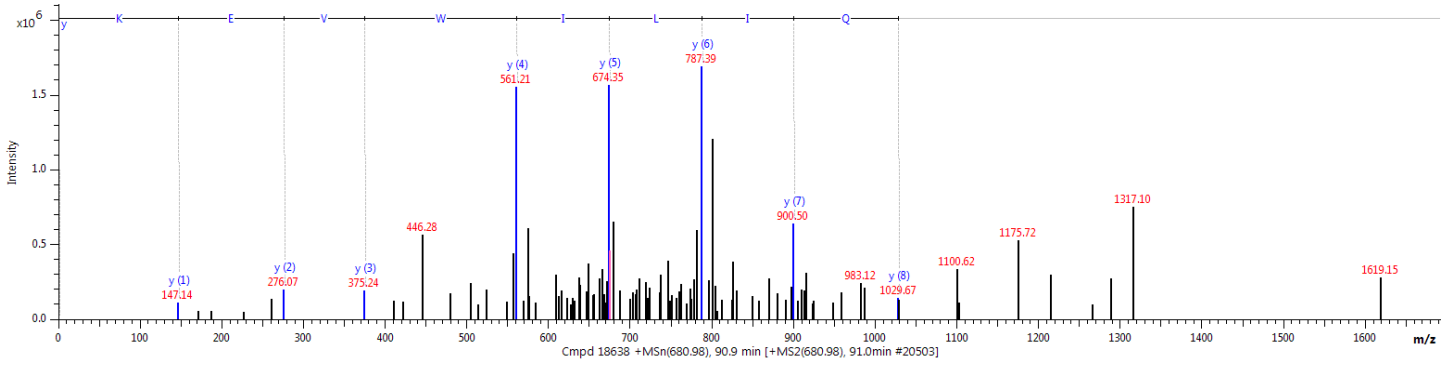
## 2. Mitochondrial ARL4-HNE adduct (KNPDSLELIR)



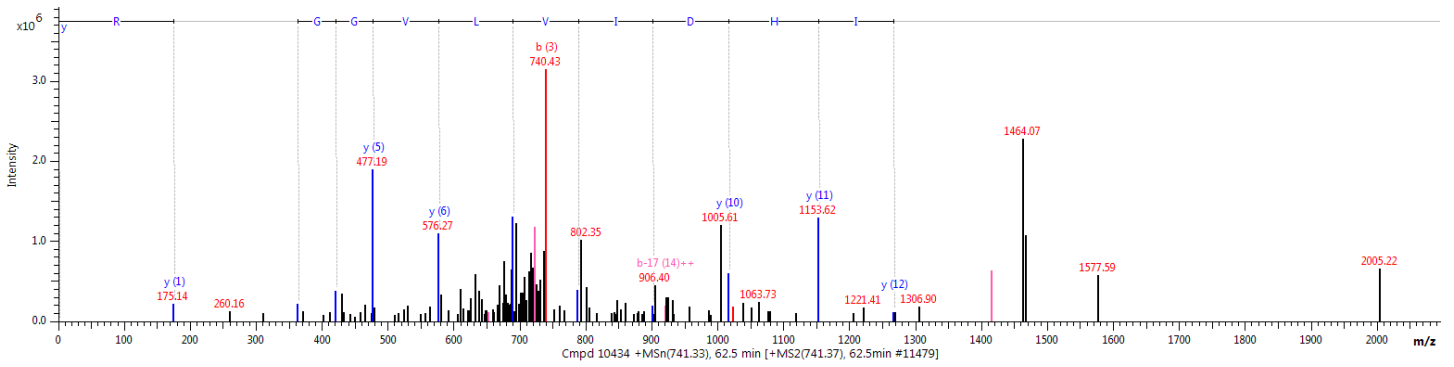
## 3. Cytosolic CE290 acrolein adduct (NLVDRLKSQLALK)



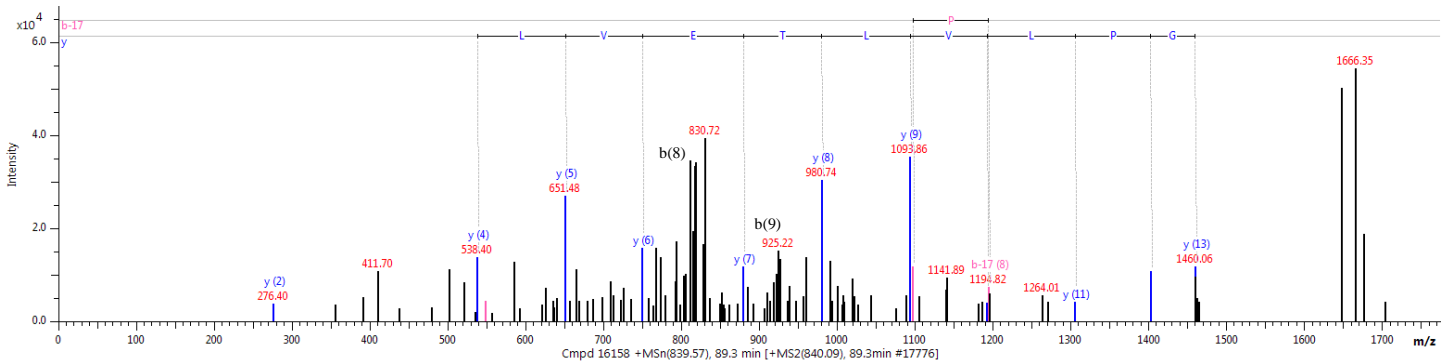
#### 4. Mitochondrial CP4AE 4-HNE adduct (DKELQQILIVVEK)



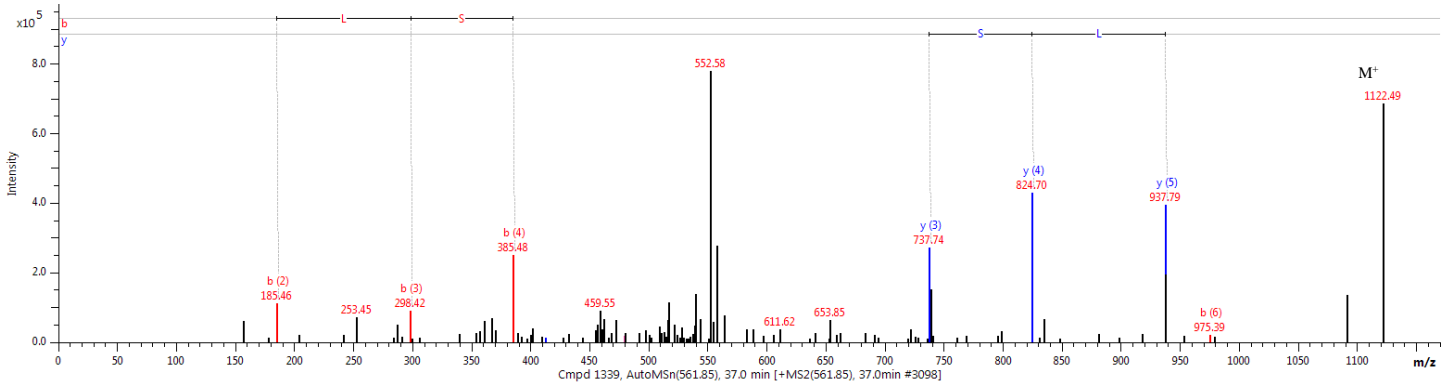
#### 5. Cytosolic HSP7C nonenaldehyde adduct (LDKSQIHDIIVLGGSTR)



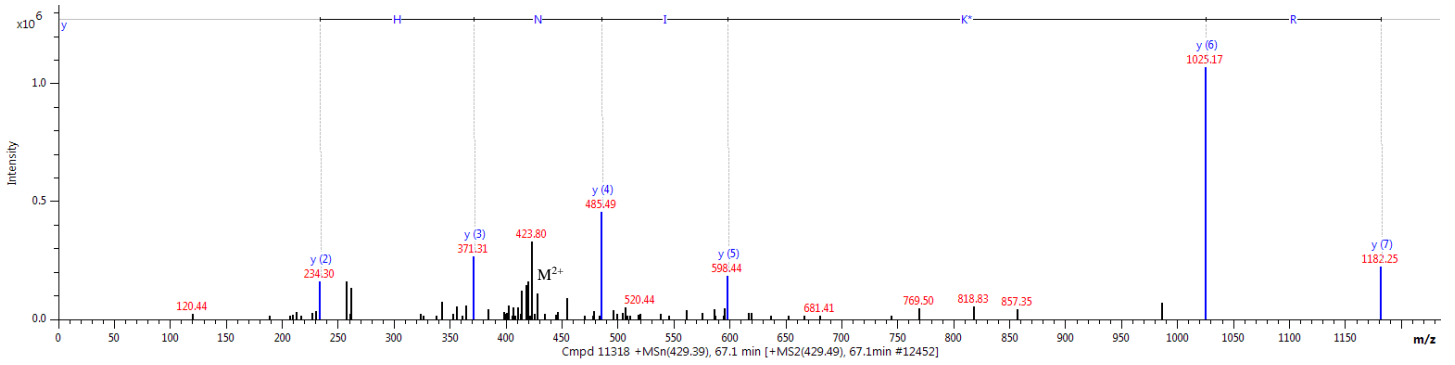
#### 6. Cytosolic IF5 4-HNE adduct (LDVKAMGPLVLTEVLFDEK)



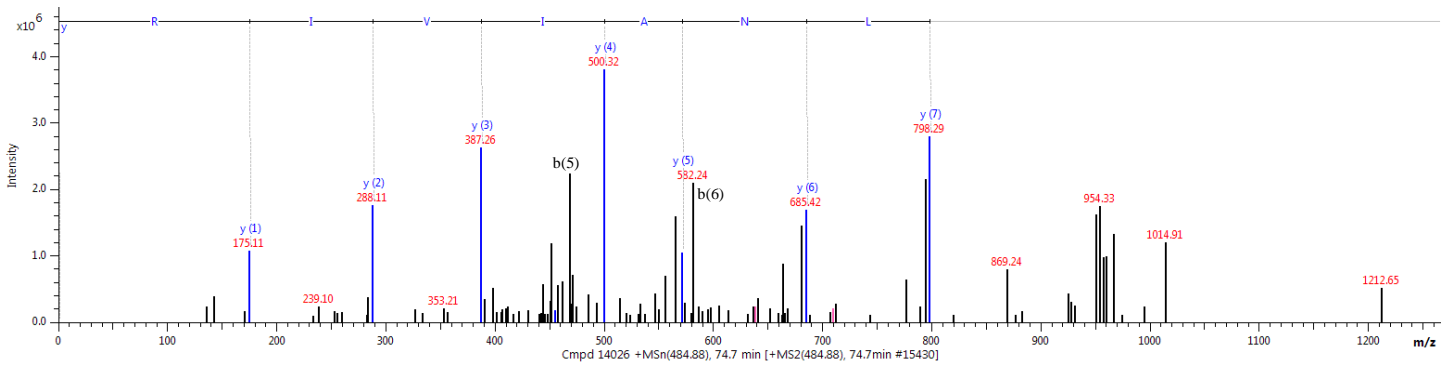
### 7. Mitochondrial MTP MDA adduct (ALLSKFK)



### 8. Cytosolic NU155 acrolein adduct (CRKINHSK)

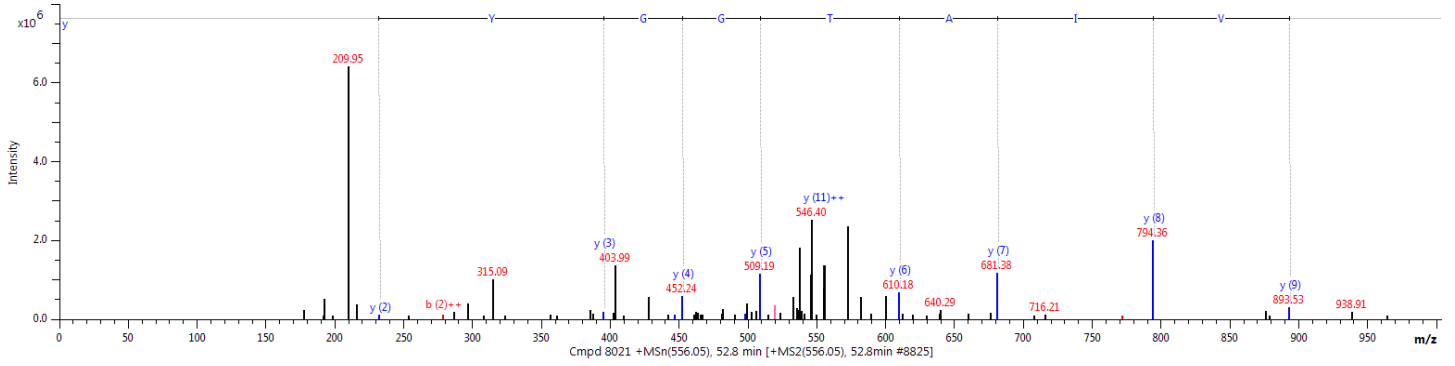


### 9. Mitochondrial OAT acrolein adduct (GKGLLNAIVR)





### 10. Mitochondrial SDHA HHE adduct (AKNTVIATGGYGR)



### 11. Cytosolic TBA4A octenaldehyde adduct (HVPRAVFVDLEPTVIDEIR)

