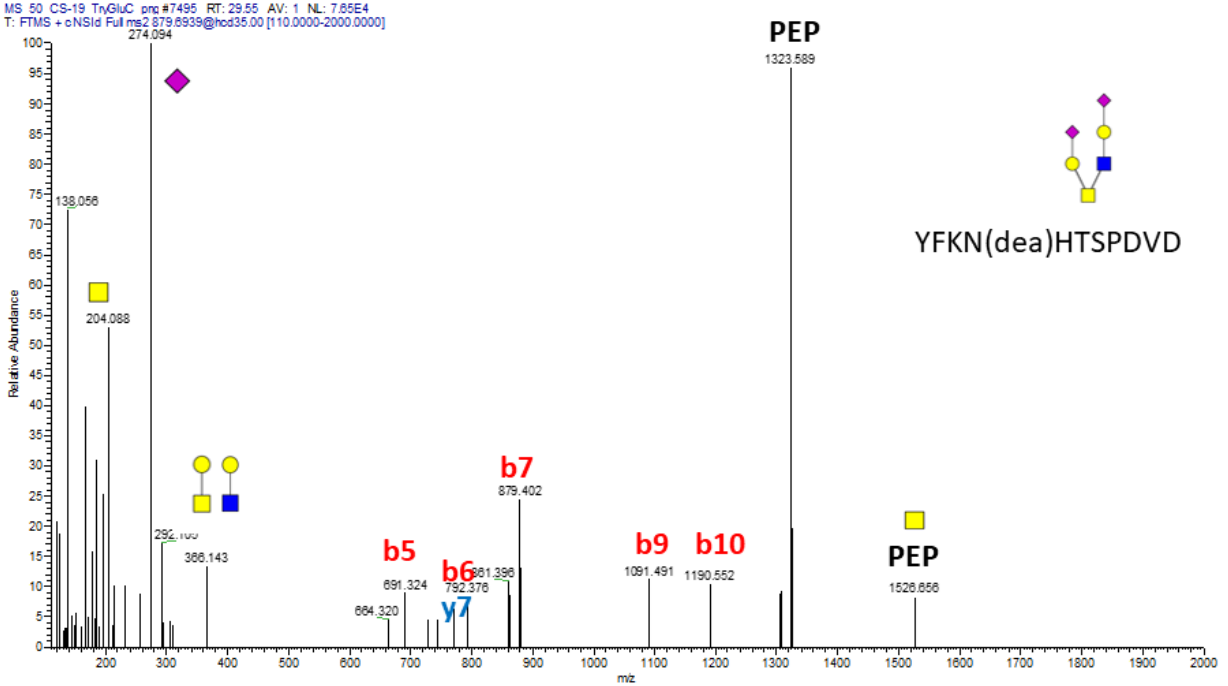
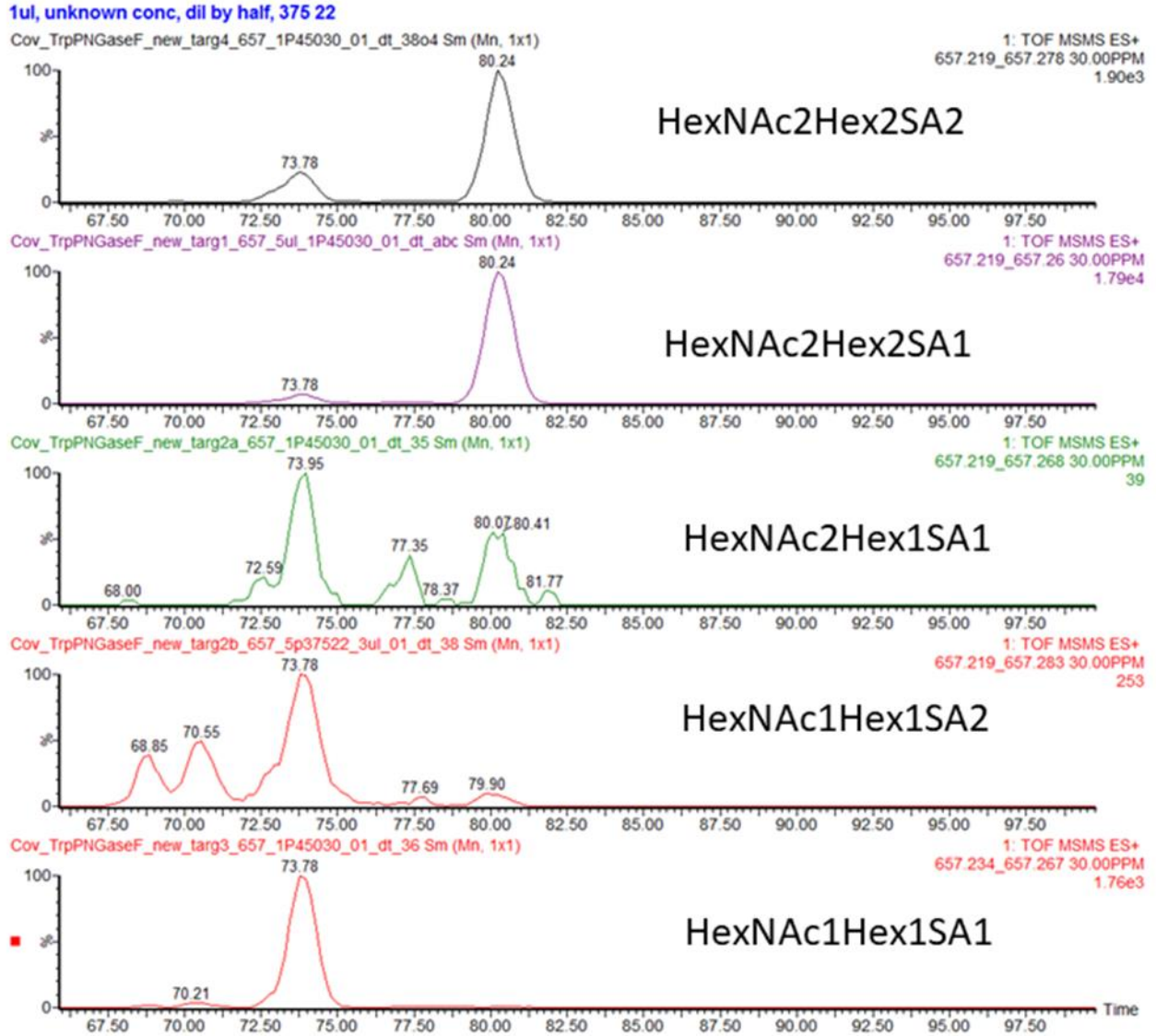


Supplemental Figure 1. HCD tandem mass spectrum of the O-glycopeptide YFKNHTSPDVD deglycosylated with PNGaseF shows that the threonine or serine are occupied by a core-2 glycan. This peptide was occupied by N- and O-glycans in neighboring positions prior to the deglycosylation with PNGaseF.



Supplemental Figure 2. cIMS ionmobilograms of the 657 fragment derived from the fragmentation of the AGC(cam)LIGAEHVNN(dea)SYEC(cam)DIPIGAGIC(cam)ASYQTQTNSPR O-Glycopeptide treated with PNGaseF and occupied by different O-glycan structures as indicated.



Supplemental Figure 3. HCD spectra of the trypsin/GluC O-glycopeptide CDPIGAGIcASYQTQT(NSPR) occupied by Tn-antigen following treatment with neuraminidase, beta galactosidase, and PNGaseF.

