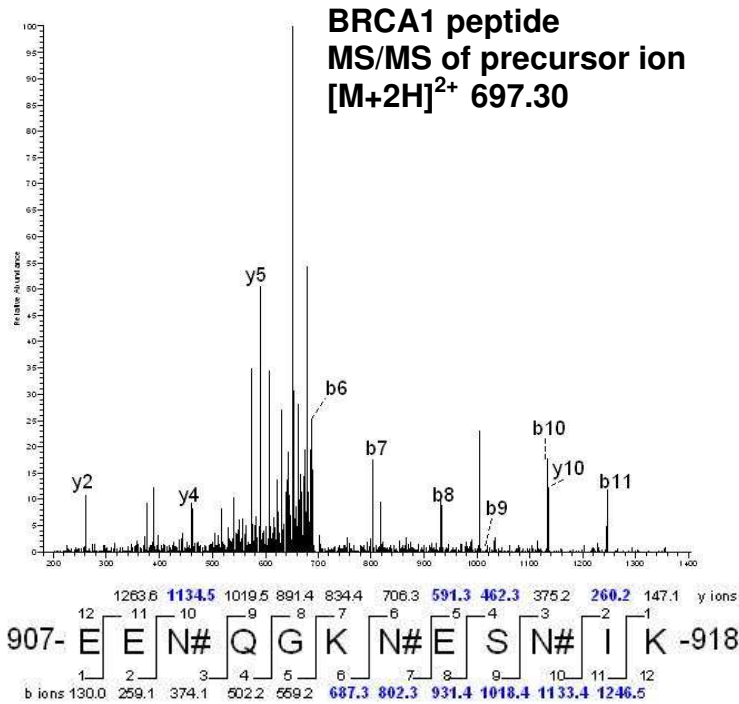


Supplemental Table 1

MC F-7 N-linked glycosylated proteins	MH+	z	Peptide	XC	Ions
afamin precursor	1588.77478	2	-.GQCIIINSN#KDDRPK.-	2.61	18/26
hypothetical protein LOC9768 isoform 1	1715.84463	2	K.EN#QIPEEAGSSGLGKAK.R	2.17	13/32
keratin 18	2687.37089	3	R.YALQM*EQLN#GILLHLESELAQTR.A	5.07	42/88
H2B histone family, member C	1776.79313	2	K.AM*GIM*N#SFVN#DIFER.I	2.69	14/28
H2B histone family, member C	1776.79313	2	-.AM*GIM*N#SFVN#DIFER.-	3.35	15/28
tankyrase	975.51055	2	-.GAN#NEKTK.-	2.25	14/ 16
tRNA splicing endonuclease 2 homolog	1726.73708	2	-.LN#SGM*VSNMEGTAGGER.-	2.40	11/ 32
MDA-MB-453 N-linked glycosylated proteins	MH+	z	Peptide	XC	Ions
afamin precursor	1588.77478	2	R.GQCIINSN#KDDRPK.D	2.42	18/26
Kinesin-like protein KIF1B (Klp)	1306.60624	2	K.N#GATHYWSLEK.L	2.08	12/ 20
transducer of ERBB2, 2	1558.85156	2	-.VALN#FIISYL YNK.-	2.05	10/ 24
valosin-containing protein	1800.78911	2	K.MTN#GFSGADLTEIC@QR.A	4.82	21/30
Heterogeneous nuclear ribonucleoprotein L	1730.77240	2	K.ASLN#GADIYSGC@C@TLK.I	3.65	20/30
glyceraldehyde-3-phosphate dehydrogenase	1764.78639	2	-.LISWYDNEFGYSN#R.-	2.59	15/26
keratin 18	2671.37698	3	R.YALQMEQLN#GILLHLESELAQTR.A	5.59	40/88
serine (or cysteine) proteinase inhibitor, clade A	1856.96152	3	-.FN#KPFVFLMIEQNTK.-	3.43	27/56
tRNA splicing endonuclease 2 homolog	1726.73708	2	-.LN#SGM*VSNMEGTAGGER.-	2.23	11/ 32
hypothetical protein LOC9768 isoform 1	1715.84463	2	K.EN#QIPEEAGSSGLGKAK.R	2.22	15/ 32
H2B histone family, member C	1776.79313	2	-.AM*GIM*N#SFVN#DIFER.-	4.49	22/28
H2B histone family, member C	1745.78732	2	K.AMGIMN#SFVN#DIFER.I	4.81	22/28
H2B histone family, member C	1744.80330	2	K.AMGIMNSFVN#DIFER.I	5.37	23/28
MDA-MB-468 N-glycosylated proteins	MH+	z	Peptide	XC	Ions
tRNA splicing endonuclease 2 homolog	1726.73708	2	-.LN#SGM*VSNMEGTAGGER.-	2.40	12/ 32
tankyrase	975.51055	2	-.GAN#NEKTK.-	2.25	11/ 16
furry homolog	929.54146	2	-.KAVDN#LR.-	2.01	9/ 14

Supplemental Table 1: Deaminated peptides found outside the NXS/T motif typically found with N-linked glycosylation.

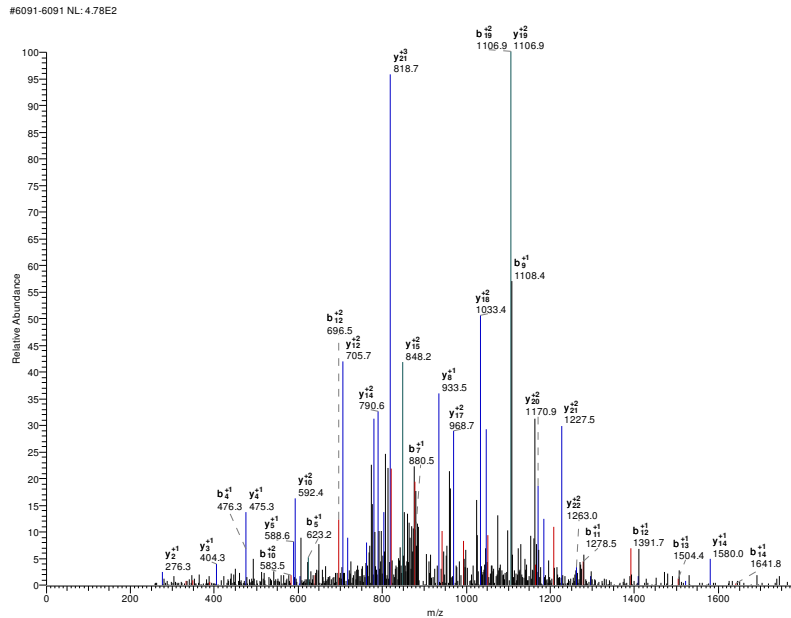
Supplemental Figure 1



Supplemental Figure 1. MS/MS data of BRCA1 peptide demonstrating the N-linked glycosylation site (#=deaminated asparagines). The parent ion had a measurement error less than 2 ppm.

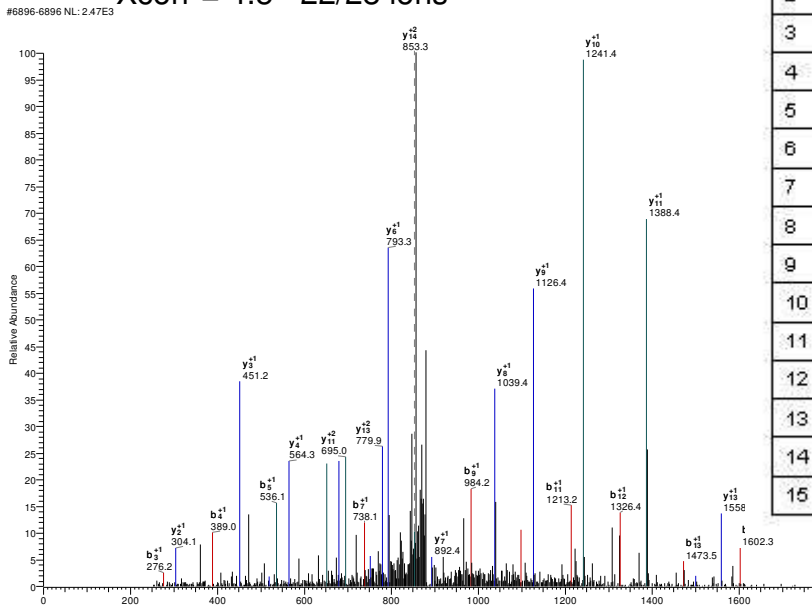
Supplemental Figure 2

A. Keratin18 YALQMEQLN#GILLHLESELAQTR Xcorr 5.071 44/88 ions



	AA	B ions	Y ions	
1	Y	164.070605	-	23
2	A	235.1077188	2524.307574	22
3	L	348.1917827	2453.27046	21
4	Q	476.2503602	2340.186396	20
5	M*	623.2857648	2212.127818	19
6	E	752.3283579	2065.092414	18
7	Q	880.3869354	1936.049821	17
8	L	993.4709994	1807.991243	16
9	N#	1108.497947	1694.907179	15
10	G	1165.519411	1579.890232	14
11	I	1278.603475	1522.868768	13
12	L	1391.687538	1409.774704	12
13	L	1504.771602	1296.69064	11
14	H	1641.830514	1183.606576	10
15	L	1754.914578	1046.547664	9
16	E	1883.957171	933.4636004	8
17	S	1970.9892	804.4210073	7
18	E	2100.031793	717.3889789	6
19	L	2213.115857	588.3463859	5
20	A	2284.152971	475.2623219	4
21	Q	2412.211548	404.2252081	3
22	T	2513.259227	276.1666306	2
23	R	-	175.1189522	1

B. H2B histone AMGIMN#SFVNDIFER Xcorr = 4.5 22/28 ions

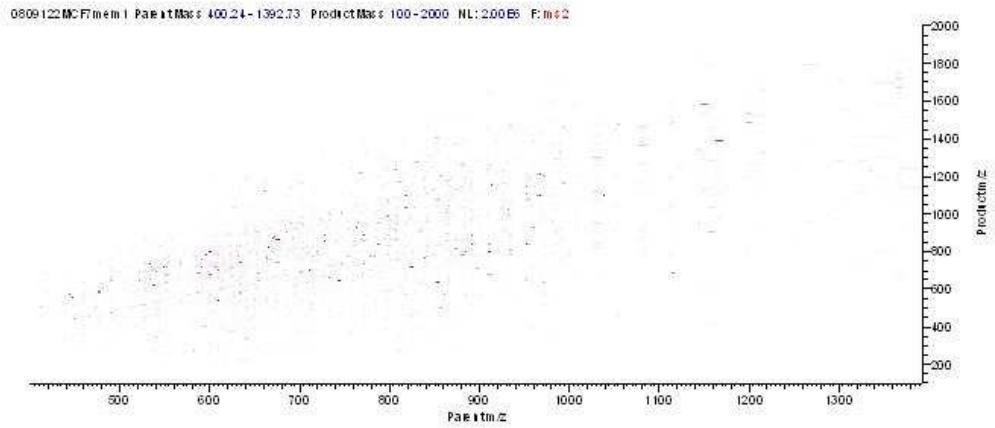


	AA	B ions	Y ions	
1	A	72.04439023	-	15
2	M*	219.0797949	1705.756034	14
3	G	276.1012586	1558.72063	13
4	I	389.1853225	1501.699166	12
5	M*	536.2207272	1388.615102	11
6	N#	651.2476746	1241.579697	10
7	S	738.279703	1126.55275	9
8	F	885.3481169	1039.520721	8
9	V	984.4165308	892.4523075	7
10	N	1098.469468	793.3838936	6
11	D	1213.496401	679.3409661	5
12	I	1326.570465	564.3140231	4
13	F	1473.638679	451.2299591	3
14	E	1602.681472	304.1615452	2
15	R	-	175.1189522	1

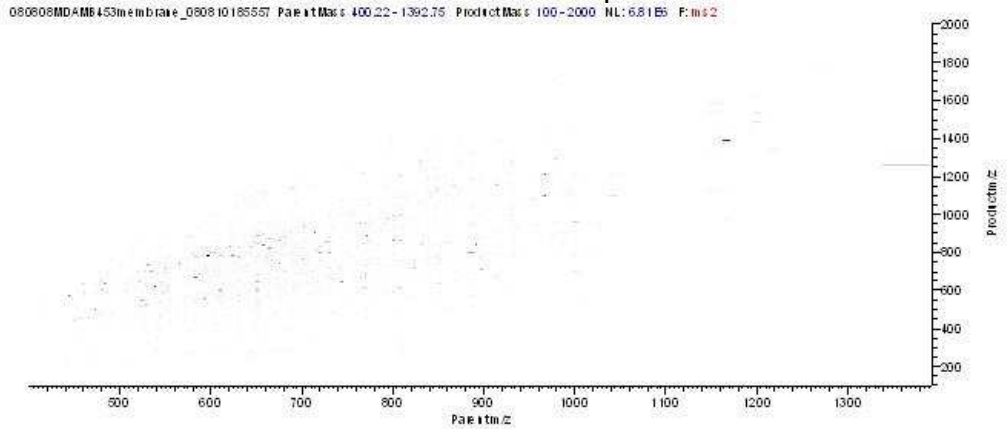
Supplemental Figure 2 A) The MS/MS data of keratin 18 peptide demonstrating the N-linked glycosylation site outside the NXS/T motif (#=deaminated asparagines; *=oxidized methionine). The MS/MS data had a Xcorr 5.071 and matched 44 out of 88 ions. B) The MS/MS data of H2B Histone peptide demonstrating the N-linked glycosylation site outside the NXS/T motif. The MS/MS data had a Xcorr = 4.5 and matched 22 out of 28 ions.

Supplemental figure 3

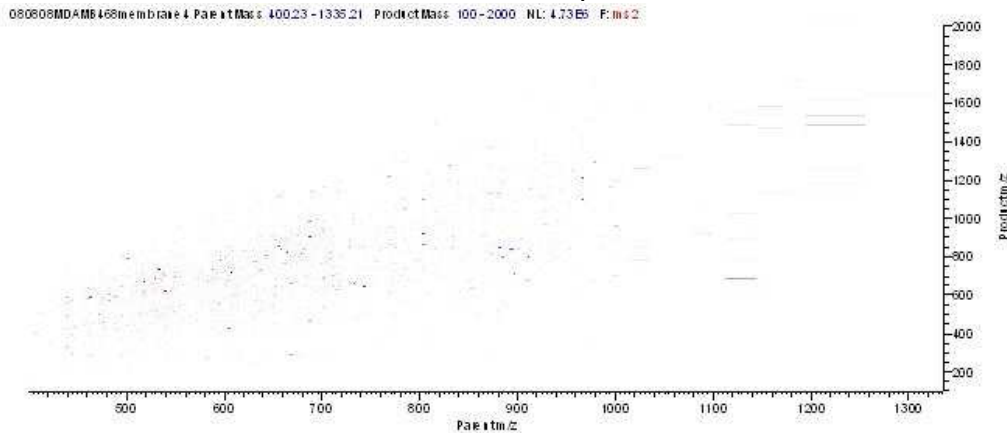
MCF-7 crude membrane ion map



MDA-MB-453 crude membrane ion map



MDA-MB-468 crude membrane ion map



Supplemental Figure 3. Representative 2-D ion maps of MCF-7, MDA-MB-453, and MDA-MB-468 crude membrane samples.