

Supporting Information

Myers et al. 10.1073/pnas.1019289108

Fig. S1. ETD MS/MS spectra of the O-GlcNAcylated peptides identified in this study. Peptide sequence and site assignment of the HexNAc mass modification are assigned based on Protein Prospector results. Charged reduced species and common neutral losses (1) are not labeled.

http://msf.ucsf.edu/personal_pages/myers/Myers_2011_Figure_S1.pdf

1. Fälth M, et al. (2008) Analytical utility of small neutral losses from reduced species in electron capture dissociation studied using SwedECD database. *Anal Chem* 80:8089–8094.

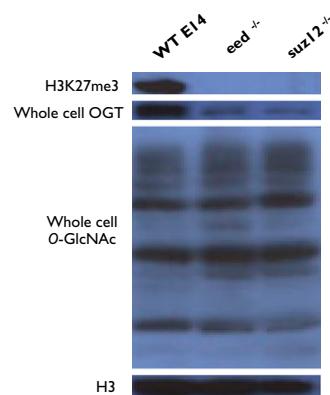


Fig. S2. Whole-cell lysate analysis of H3K27me3, OGT, O-GlcNAc, and H3 in ESC mutants for *eed* or *suz12*.

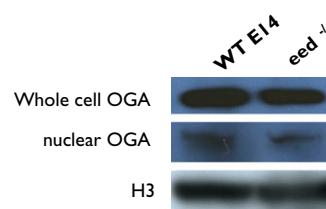


Fig. S3. Analysis of whole-cell and nuclear lysates for the O-GlcNAc hydrolase OGA/NCOAT/MGEA5 (OGA) in WT and *eed*^{-/-} mutant ESCs.

Table S1. All O-GlcNAc modified peptides identified in this study

Gene name	Accession no.	O-GlcNAc peptides	Modified residue
Aqfg1	Q8K2K6	SSSADFGTFS TS(HexNAc) QSHQASTVSK	T301 or S302
Atf7ip	Q7TT18	NSSTTAAPL G T(HexNAc) T LAVQAVPTAHSIVQATR	T902 or T903
Bnc2	Q2TBA4	AT(S(HexNAc))GAATPVIASTK	S437
Bptf	A2A654	QTVV S(HexNAc)S(HexNAc)TENC*AR	S1742 and S1743
Bptf	A2A654	S(HexNAc)TVTTTTTVTK	S1750
Bptf	A2A654	ST(HexNAc)VTTTTTVTK	T1751
Bptf	A2A654	STV T(HexNAc)TT(HexNAc)TTTVTK	T1754 and T1756
Bptf	A2A654	STV TT(HexNAc)T(HexNAc)TTVTK	T1755 and T1756
Bptf	A2A654	STV TTT(HexNAc)TTVT(HexNAc)K(heavy)	T1755 and T1760
Bptf	A2A654	T(HexNAc)VITEVTTMTSTVATESK	T1710 or T1713
Bptf (frag)	A2A653	IVAVNVPAT(HexNAc)QGGMVQQKK	T225
C1orf88	Q9D9W1	VPT ST(HexNAc)KGYAIGAR	T82 or S83 or T84
Cdk12	Q14AX6	TS(HexNAc)T LSSQTNSQPPVQVSMK	T588-T590
Cdk13	Q69ZA1	TENQHVP TT(S(HexNAc))SSLTDPHAGVK	T1286 or S1287
Cnot2	Q8C5L3	SLSQGTQLPSHVPT T(HexNAc)TGVPMSLHTPPSPSR	T113
Cnot2	Q8C5L3	SLSQGTQLPSHVPT T(HexNAc)MSLHTPPSPSR	T118
Dido1	Q8C9B9	ISSLKPG ST(HexNAc)STVTA P T(HexNAc)TAAITTAASPVAATSK	T1280 and T1287 or T1288 mix
Ebp	P70245	Ac-T(HexNAc)TNTVPLWYWP	T2
Egr1	P08046	AMVETS(HexNAc)YPSQTTR	S117
Elf2	Q9JHC9	SPTT(HexNAc)T(HexNAc)APV SAAAAPR	T375 and T376
Emsy	Q8BMB0	IIS(HexNAc)SNIVSGTTK	S520
Emsy	Q8BMB0	ITFT(HexNAc)KPSTQTTNTTQK	T228
Emsy	Q8BMB0	ITFTK P(S(HexNAc))TQTTNTTQK	S231
Emsy	Q8BMB0	ITFTK PSTQ(T(HexNAc))TNTTQK	T234 or T235
Emsy	Q8BMB0	LVT(HexNAc)TPTGTQATYTRPTVSPSLGR	T465
Emsy	Q8BMB0	ITTPV PS(HexNAc)GSPK	S200
Emsy	Q8BMB0	TT(HexNAc)SGSIITVPK	T499 and S500 mix
Emsy	Q8BMB0	VIIT T(HexNAc)T(HexNAc)SPSSTFVPNILSK	T246 and T247
Ep400	Q8CHI8	LASPVA GTLT(HexNAc)TSGGSAPAQV VHTQQR	T2594 or T2595
Ep400	Q8CHI8	LASPVA GPTLTTSGG(S(HexNAc))APAQV VHTQQR	S2599
Gata2b	Q5JP02	S(HexNAc)ISQSISGQK	S585
HcfC1	B1AUX1	APVT(HexNAc)VTSLPASVR	T515
HcfC1	B1AUX1	IPPS(HexNAc)APTVLSVAGTTIVKT(HexNAc)VA TPGTTLPATVK	S563 and T579
HcfC1	B1AUX1	IT(HexNAc)VAPGALER	T1148
HcfC1	B1AUX1	LVTPV T(HexNAc)SAVAKPAVT(HexNAc)TLVVK	T861 and T870
HcfC1	B1AUX1	LVTPV T(HexNAc)SAVAKPAVTLVVK	T861
HcfC1	B1AUX1	QPETYHT(HexNAc)YTNTPTT (HexNAc)TR	T1238
HcfC1	B1AUX1	QPETYHTYTTNTPTT(HexNAc)TR	T1246
HcfC1	B1AUX1	RTT(HexNAc)NTPTVVR	T1139
HcfC1	B1AUX1	SGTVVAQQAQV VT(T(HexNAc)T(HexNAc))V GGVTK	T651 and T652
HcfC1	B1AUX1	SPITI TT(HexNAc)KVMTSGT GAPAK	T801
HcfC1	B1AUX1	T(HexNAc)QGVPAVLK	T480
HcfC1	B1AUX1	T(HexNAc)VAVTPGTTLPATVK	T579
HcfC1	B1AUX1	AAAQVGTS(HexNAc)VS(HexNAc)S(HexNAc)AANTSTRPIITVHK	S620 and S622 and S623
HcfC1	B1AUX1	AAAQVGTS(HexNAc)VS(S(HexNAc))AANTSTRPIITVHK	S620 and S623
HcfC1	B1AUX1	TIPMSAIT(HexNAc)QAGATGV TSSPGIK	T779
HcfC1	Q61191	VMTSGT(HexNAc)GAPAK	T808
HcfC1	B1AUX1	VTGPQAT(HexNAc)TGTPLVTPMRPASQAGK	T495
Hprt1	A8MSU4	VIGGDDLSTLTGK S(HexNAc)R	S129
Jmjdc1	Q69ZK6	HSVPQLPQSNYFTTL S(HexNAc)NSV VNEPR	S911
Jmjdc1	Q69ZK6	NSPSPWLHQPT TPV(T(HexNAc))ADGIGLLSHIPVRPSSAE PHRPHK	T728 or T731 or S732
Jmjdc1	Q69ZK6	SVVS(HexNAc)QAVAQAK	S1250
Kdm3b	Q6ZPY7	VEHPFSSVFSQASGS(HexNAc)SSSATVTSK	S460 or S461
Kiaa1310	A2RSY1	SSSSEGGGT(HexNAc)ASTTPSVASSSATPNAIHTLQSR	Between S699 and T707
Kiaa1310	A2RSY1	VPT(HexNAc)TITLTLR	T858
Kiaa1551	Q5DTW7	ISTT(HexNAc)VVGSANPTNEVHV K(heavy)	T491
Kiaa1551	Q5DTW7	NNQLPTY(HexNAc)QSLQSK	T40
Kiaa1551	Q5DTW7	QYSYILPAT(HexNAc)T(HexNAc)SLQVK	T232 and T233
Kiaa1551	Q5DTW7	QYSYILPAT(HexNAc)TSLQVK	T232 and T233 mix
Kiaa1551	Q5DTW7	YENQHVQNAQPVS(HexNAc)K	S291
Lman1	Q9D0F3	RGAGT(HexNAc)PGQPGQVSQQELDTVVK	T385
Mafk	O60675	VATT(HexNAc)SVITIVK	T133 or T143
Med15	Q924H2	C*M TS(HexNAc)RLQLPDK	T761 or S762
Myb	P06876	TPAIKR S(HexNAc)ILESSPR	S454
NCoR1	Q60974	RTPV S(HexNAc)YQNTISR	S1496
NCoR1	Q60974	SVQC*VC*T(HexNAc)S(HexNAc)SALPSGK	T1899 and S1900
NCoR2	Q9WU42	GSPV TT(HexNAc)REPTPR	T1531 or T1532
Nfrkb	Q6PIJ4	IQTPAPSHLQQGT(HexNAc)ASGSSK	T1270
Nfrkb	Q6PIJ4	QPVNTTV STS(HexNAc)QSGKLPTR	S1172
Nup53	Q8R4R6	S(HexNAc)ISGPSVGVMEMR	S53
Nup53	Q8R4R6	ASTS(HexNAc)DYQVISDR	S297
Nup98	Q68G59	LPIS(HexNAc)ASHSSK	S426
Nup153	Q80WR0	FGIPS(HexNAc)SSGLSQLTLSTGNFK	S898 or S899

Table S1. Cont.

Gene name	Accession no.	O-GlcNAc peptides	Modified residue
Nup153	Q80WR0	QQEPVTS(HexNAc)TSLVFGK	S1102
Nup153	Q80WR0	S(HexNAc) VSVTPTFYK	S1046
Nup153	Q80WR0	SGFNGFTLDT(HexNAc)K	T1044
Nup153	Q80WR0	VDSPALQPTT(HexNAc)T(HexNAc)SSIVYTRPAISTFSSSGIEYGESLK	T627 and T628
Nup188	Q6ZQH8	AQRPS(HexNAc)TTTTTTTTTATPAGC*SSK	S1522
Nup214	Q80U93	AAPGS(HexNAc)GTSTFSAPP SK	S513
Nup214	Q80U93	FTAVAS(HexNAc)SAPVHSSTSTPSVLPFSSPKPTASGPLSHPTPLPASSSMPLK	S589 or S590
Nup214	Q80U93	GGGFFSGLGGKPS(HexNAc)QDAANKNPFSAGGGFGSTAAPNTSNLFGNSGAK	S1889 or 1899
Nup214	Q80U93	HGAPGPSHT(HexNAc)VAAAPQAAAAAALRR	T1091
Nup214	Q80U93	SSASVTGEPPLYPTGS(HexNAc)DSSR	S504
Nup214	Q80U93	VGQAEDSTKPKVS(HexNAc)K	S1362
Phc3	Q8CHP6	SAGQT(HexNAc)QSLTIC*HNK	T238
Phf21a	Q6ZPK0	FTPPTLPTS(HexNAc)QNSIHIVPR	S286
Pogz	Q8BZH4	RPGVT(HexNAc)GENSNEVAK	T310
Pogz	Q8BZH4	VT(HexNAc)SSIPVFDLQDGGR	T358
Prdx6	O08709	LKLSILYPAT(HexNAc)TGR	T152
Qser1	A2BIE1	GTDVYVPTTS(HexNAc)PSLESC*DEGFQHQEK	T1077 or S1078 or S1080
Qser1	A2BIE1	TS(HexNAc)QGTVPTALAFER	S105
RanBP2	Q9ERU9	ALGNTTS(HexNAc)TAPNHTLR	T1306 and S1307 mix
RanBP2	Q9ERU9	SVFTT(HexNAc)AASELANK	T1138
Rbbp7	Q5JP02	Ac-DDHT(HexNAc)VC*LWDINAGPK	T4
Rbm14	Q8C2Q3	AQPSVS(HexNAc)LGAAYR	S244
Rbm14	Q8C2Q3	AQPSVS(HexNAc)LGAPYR	S280
Rprd2	Q3UY82	EKPVEKPAVS(HexNAc)T(HexNAc)GVPTK	S103 and T104
Rprd2	Q6NXI6	EKPVEKPAVS(HexNAc)TGVPKT	S103
Rprd2	Q6NXI6	SIFSSQSTLAAPAGHPPTS(HexNAc)GVEK(heavy)	S1110
Sal4	Q8BX22	LPHAS(HexNAc)VPSAASPLSSGLTSFTLKDPGTR	S299 or S302
Sap130	Q8BIH0	AQSPVIT(T(HexNAc)T(HexNAc))AAHAADSTLSRPTLSIQHPPSAISIQRPAQSR	T284 and T285
Sap130	Q8BIH0	IT(HexNAc)LPSHPALGTPK	T320
Sap30bp	Q02614	KGT ^{TT} (HexNAc)NATATSTSTASTAVADAQK	T232 or T233
Sin3a	Q60520	VS(HexNAc)KPSQLQAHPTASQQTPLPPYASPR	S251
Snbo1	Q68925	FIQT(HexNAc)TANTRPSVSAPAVR	T124
Sox2	P48432	S(HexNAc) EASSSPPVVTSSHSR	S248
Sp2	Q9D2H6	S(HexNAc) STTTTPVQSGANNVK	S186
Spen	Q62504	TDRPSLEKPEPIHLSVST(HexNAc)PVTQGGTVK	T2896
Spen	Q62504	TDRPSLEKPEPIHLSVSTPV(T(HexNAc)QGGTVK	T2899
Taf4a	A2AC70	QVS(HexNAc)QAQTTVQPTTLLQR	S123
Taf6	Q62311	TT(HexNAc)LTTQPRPTLTLSQAPQPQGPGR	T49
Tcf20	Q9EPQ8	T(HexNAc)EPSKSPGSLR	T725
Tet1	D0VLQ4	VSIT(HexNAc)GSADV K	T535
Tle4	Q04727	T(HexNAc)DAPTPGSNSTPGLRPVPGKPPGVDPLOSSR	T340
Trim33	Q99PP7	QHSNPGHAGPFPVVS(HexNAc)AHNPINPTSPTTATMANANR	S350
Trnc6a	Q3UHK8	LTWSPGSVTN ^{TS} (HexNAc)LAHELWK	T1646 or S1647
Vim	Q3TWV0	TYSLGSALRSTS(HexNAc)R	S49
Yeast2	Q3TU7	QEPGEAHPV ST (HexNAc)TGAASQSAFPQYVTVK	S600 and T601 mix
Yeast2	Q3TU7	QEPGEAHPV ST (HexNAc)GAASQSAFPQYVTVK	T602
Ylpm1	Q9R017	QALLPTV ^S (HexNAc)FGSTPPSPYHPPPQSEQVN SKPLNK	S636
Zfhx3	Q15911	NKNOFOHPLV ^S (HexNAc)TANLIGPGHSFY GK	S353
Zfp281	Q3U063	VKT(Phospho)PT(HexNAc)SQSYR	T888
Zfp281	Q3U063	VKTPT ^S (HexNAc)QSYR	S889
Zfp281	Q3U063	STNAGFTLGHGFQFV ^S (HexNAc)LSSPLHNHTLFPEK	S691
Zfr	O88532	AGYS(HexNAc)QGATYTAQQAR	S195
Znf318	Q99PP2	TVIAHT ^T (HexNAc) ^S PWTPVTTSTQTK	T1185 and S1186 mix

The gene name and accession number are given. Black denotes the unambiguous assignment of the O-GlcNAc moiety (mass addition of a HexNAc). Red denotes that the exact site is not assigned but can be localized to one of the red-colored residues. Green and blue indicate a mixture of positional isomers, wherein the corresponding colors in the annotated mass spectrum (Fig. S1) identify both positional isomers as O-GlcNAcylated. Ac, acetylation; *, Carbamido-methylation.

Table S2. All O-GlcNAc-modified peptides identified in the SILAC analyses, along with PRC2/WT ratios, as described in the main text

Gene name	O-GlcNAc-modified peptides identified from SILAC analyses	$\text{eed}^{-/-}/\text{WT}$ SILAC ratios	SD, $n = 3$
Agfg1	SSSADFGTGSTS(HexNAc)QSHQTAESTVSK	0.67	
Atrx	IC(Carbamidomethyl)GS(HexNAc)GLNS(Phospho)DM(Oxidation)MENNKEEGASTSEK	0.29	
Bnc2	ATS(HexNAc)GAATPVIASTK	0.27	
Bptf	QTVVS(HexNAc)S(HexNAc)TENC(Carbamidomethyl)AR	1.0	0.1
Bptf	S(HexNAc)TVTTTTTVTK	0.52	0.03
Bptf	STVTTT(HexNAc)TTTVT(HexNAc)K	0.12	
Bptf	T(HexNAc)VITEVTMSTVATESK	1.00	
Bptf	TVIT(HexNAc)EVTVT(HexNAc)TMSTVATESK	0.27	0.02
Bptf (fragment)	IVAVNVPAT(HexNAc)QGGMVQVQQK	0.91	
C1orf88 homolog	VPTST(HexNAc)KGYAIGAR	0.92	0.08
Cdk12	TS(HexNAc)TLSSQTNSQPPVQVSMK	2.42	
Cnot2	SLSQGTQLPSPHTPTT(HexNAc)GVPTMSLHTPPSPSR	1.12	
Dido1	ILSSLKPGST(HexNAc)STVTAPTT(HexNAc)AAITTASPVTAATSK	1.12	
Egr1	AMVETS(HexNAc)YPSQTTR	2.03	
Emsy	IIS(HexNAc)SNIVSGTTK	0.06	
Emsy	ITFT(HexNAc)KPSTQTTNTTQK	1.37	0.09
Emsy	TITVPVS(HexNAc)GSPK	0.45	
Emsy	TTT(HexNAc)GSIIIVVPK	1.1	0.3
Ep400	LASPVAAPGTLTTSGGS(HexNAc)APAQVVHTQQR	0.59	
HcfC1	APVT(HexNAc)VTSLPASVR	1.72	
HcfC1	IPPSAAPT(LSVPAGT(HexNAc)TIVKTVAVT(HexNAc)PGTTTLPATVK	0.47	
HcfC1	IT(HexNAc)VAPGALER	0.97	0.06
HcfC1	LVTPVT(HexNAc)VSAVKPAVTTLVVK	6.93	
HcfC1	QPETYHT(HexNAc)YTNTPTTTR	1.2	0.3
HcfC1	QPETYHTYTTNTPTT(HexNAc)R	6.67	
HcfC1	SGTVVAQQAQVVT(HexNAc)T(HexNAc)VVGVTK	0.78	
HcfC1	SPITIITT(HexNAc)KVMTSGTGAPAK	1.0	0.1
HcfC1	T(HexNAc)VAVTPGTTTLPATVK	1.44	
HcfC1	TAQQAQVGT(S(HexNAc)VS(HexNAc)S(HexNAc)AANTSTRPIITVHK	0.33	
HcfC1	TAQQAQVGT(S(HexNAc)VSS(HexNAc)AANTSTRPIITVHK	0.76	0.09
HcfC1	TAQQAQVGT(S(HexNAc)VSS(HexNAc)AANTSTRPIITVHK	1.77	
HcfC1	TIPMSAIIT(HexNAc)QAGATGVTSSPGIK	0.9	0.3
HcfC1	VMTSGT(HexNAc)GAPAK	0.77	
HcfC1	VTGPQAT(HexNAc)TGTPLVTPMRPASQAGK	0.70	
Jmjd1	NSPSPWLHQPTPV(HexNAc)SADGIGLLSHIPVRPSSAEPRPHK	0.47	
Kiaa1310	VPT(HexNAc)TITLTTR	13.87	
Kiaa1551	ISTT(HexNAc)VVG SANPTNEVHVK	0.41	
Kiaa1551	NNQLPTYT(HexNAc)QLQSK	0.59	
Kiaa1551	YENQHVQNAQPVS(HexNAc)K	0.4	0.3
Lman1	RGAGT(HexNAc)PGQPGQVSQLQELDTVVK	4.9	0.2
MafK	VATT(HexNAc)SVITIVK	1.13	
Myb	TPAIKRS(HexNAc)ILESSPR	6.45	
NCoR2	GSPVTT(HexNAc)REPTPR	0.85	0.03
Nfrkb	IQTPASHLQQGT(HexNAc)ASGSSK	0.38	
Nfrkb	QPVNTTVVSTS(HexNAc)QSGKL PTR	0.46	
Nup53	ASTS(HexNAc)DYQVISDR	0.45	
Nup53	S(HexNAc)ISGPSVGVMEMR	0.50	
Nup153	FGIPSSSGLS(HexNAc)QTLTSTGNFK	0.28	
Nup153	QQEPVTS(HexNAc)TSLVFGK	0.41	
Nup153	S(HexNAc)VSVTPETYK	0.40	
Nup214	AAPGS(HexNAc)GTSTFSFAPP SK	0.45	
Nup214	HGAPGPSHT(HexNAc)VAAPQAAAAAALRR	0.28	
Nup214	SSASVTGEPPPLYPTGS(HexNAc)DSSR	0.72	
Nup214	VGQAEDSTKPV(S(HexNAc)K	0.67	
Phc3	SAGQT(HexNAc)QSLTIC(Carbamidomethyl)HNK	5.10	
Phf21a	FTPTTLPTS(HexNAc)QNSIHPVR	1.31	
Pogz	RPGVT(HexNAc)GENSNEVAK	0.34	
Qser1	DSTQVS(HexNAc)NGVLPQK	0.96	
Qser1	TS(HexNAc)QGTVP TALA FER	0.65	
RanBP2	SVFTT(HexNAc)AASELANK	0.8	0.6
Rbm14	AQPSVS(HexNAc)LGAPYR	0.29	0.03
Rprd2	EKPVEKPAVS(HexNAc)GVPTK	0.6	0.1

Table S2. Cont.

Gene name	O-GlcNAc-modified peptides identified from SILAC analyses	$\text{eed}^{-/-}/\text{WT}$ SILAC ratios	SD, $n = 3$
Sap30bp	KGT(HexNAc)TTNATATSTASTAVADAQK	1.41	0.03
Sap130	AQSPVITT(HexNAc)T(HexNAc)AAHAADSTLSRPTLSIQHPPSAISIQRPAQSR	0.82	
Sap130	IT(HexNAc)LPSHPALGTPK	0.21	
Sin3a	VS(HexNAc)KPSQLQAHTPASQQTPLPPLYASPR	0.69	
Snbo1	FIQT(HexNAc)TANTRPSVSAPAVR	0.45	
Sp2	S(HexNAc)STTTTPVQSGANVK	0.37	
Spen	TDRPSLEKPEPIHLSVST(HexNAc)PVTQGGTVK	1.03	0.06
Taf4a	QVS(HexNAc)QAQTTVQPTTTLQR	0.33	
Taf6	TT(HexNAc)LТИQPRPTLTLSQAPQPGPR	2.23	
Tet1	VSIT(HexNAc)GSADVVK	0.83	
Tle4	T(HexNAc)DAPTPGSNSTPGLRPVPGKPPGVDPLOSSLR	1.2	0.7
Trim33	QHSNPGHAGPFPVVS(HexNAc)AHNPINPTSPTTATMANANR	0.91	
Yeats2	QEPGEAPHVSTT(HexNAc)GAASQSAFPQYVTVK	0.65	0.02
Zfhx3	NKNFQHPLVS(HexNAc)TANLIGPGHFSFYGK	2.85	
Zfp281	STNAGFTLGHGFQFVS(HexNAc)LSSPLHNHTLFPEK	0.46	
Zfp281	VKT(Phospho)PT(HexNAc)SQSYR	0.47	0.02
Zfp281	VKTPTS(HexNAc)QSYR	0.6	
Zfr	AGYS(HexNAc)QGATQYTQAQQAR	0.38	

SDs are reported if the particular glycopeptide was identified between biological replicates.

Table S3. O-GlcNAcylated peptides identified from this study that overlap with those reported by Wang et al. (1) and Chalkley et al. (2)

Gene name	Modification position in human, unless noted (UniProt)	UniProt ID [Wang et al. (1)]	Modified peptide sequence from Wang et al. (1) overlapping with this study	Also reported in Chalkley et al. (2)
Hcf1	T495	P51610	VTGPQAT(HexNAc)TGTPLVTPMRPASQAGK	
Hcf1	S563	P51610	IPPSS(HexNAc)APTVLSPVAGTTIVK	
Hcf1	T779	P51610	TIPM-oxSAIIT(HexNAc)QAGATGVTSSPGIK	
Hcf1	T800	P51610	SPITIITT(HexNAc)K	
Hcf1	T808	P51610	VMTSGT(HexNAc)GAPAK	
Hcf1	T861	P51610	LVTPVTP(HexNAc)VSAKPAVTTLVVK	
Emsy	S236	Q7Z589	TITVPVS(HexNAc)GSPK	
Emsy	T501	Q7Z589	LVT(HexNAc)TPTGTQATYTRPTVSPSIGR	
Emsy	(T534/T535)	Q7Z589	(TT)(HexNAc)SGSITVVPK	X
Emsy	S557	Q7Z589	IIS(HexNAc)NIVSGTTTK	
Nup153	S908	P49790	FGVS(HexNAc)SSSSGSPSQTLTSTGNFK	
Nup153	S909	P49790	FGVSS(HexNAc)SSSGPSQTLTSTGNFK	
Bptf	S1749 & T1753	Q12830	S(HexNAc)TVTT(HexNAc)TTTTVTK	
Rbm14	S244	Q96PK6	AQPSVS(HexNAc)LGAAYR	
Rbm14	S280	Q96PK6	AQPSVS(HexNAc)LGAPYR	
Nfrkb	T1273	Q6P4R8	IQTVPASHLQQGT(HexNAc)ASGSSK	
Zfr	S195	Q96KR1	AGYS(HexNAc)QGATQYTQAQQTR	
Qser1	(T104/S105)	Q2KHR3	(TS)(HexNAc)QGTVPTALAFER	
Kiaa1310	T860	Q9P2N6	VPTT(HexNAc)ITLTLR	
NCOR1	S1487	O75376	TPVS(HexNAc)YQNTMSR	X
NCOR2	(T1569/T1570)	Q9Y618	GSPV(TT)(HexNAc)REPTPR	
Taf4a	S528	O00268	QVS(HexNAc)QAQTTVQPSATLQR	
Zfp281	S891	Q9Y2X9	TPTS(HexNAc)QSYR	

Red indicates differences in site assignments between studies.

1. Wang Z, et al. (2010) Extensive crosstalk between O-GlcNAcylation and phosphorylation regulates cytokinesis. *Sci Signal*, 10.1126/scisignal.2000526.2. Chalkley RJ, Thalhammer A, Schoepfer R, Burlingame AL (2009) Identification of protein O-GlcNAcylation sites using electron transfer dissociation mass spectrometry on native peptides. *Proc Natl Acad Sci USA* 106:8894–8899.