

**Table S1.** List of small sequences of short listed proteins using selection criteria # 1 (i.e. proteins with known *O*-GlcNAc modification site(s) (**Sg/Tg**) having proline at either -/+1 and/or -/+3 position (**P**), with potential tyrosine phosphorylation site (**Y**) in the vicinity) showing known *O*-GlcNAc site(s) with potential tyrosine phosphorylation site(s) in the vicinity. Similar residues in prohibitin are also shown.

<b>Protein</b>	<b>Sequence</b>
Bassoon	1414 <b>SgPSgTgSgSg</b> TIHS <b>SgY</b> GQP <b>P</b> TT 1430
Bassoon	1932 SV <b>Tg</b> DTAL <b>P</b> GQSS <b>GPFY</b> SPR 1950
Bassoon	2120 HG <b>SgSgSg</b> GG <b>P</b> DLVQ <b>Y</b> QPQH <b>G</b> PGL <b>Sg</b> APQ 2144
Bassoon	3213 <b>SgSgVSgQ</b> <b>SgP</b> APT <b>gYPSg</b> DS <b>SgHY</b> TS <b>Sg</b> L 3232
CREB coactivator CRTC2 (TORC2)	65 SH <b>Y</b> GG <b>Sg</b> L <b>P</b> NVNQIGCGLAEFQ <b>S</b> PL <b>HSP</b> 91
CREB Coactivator CRTC2 (TORC2)	170 <b>SSg</b> DS <b>Sg</b> ALHTSV <b>M</b> NP <b>Q</b> DT <b>Y</b> PG <b>P</b> TP <b>S</b> VL <b>PS</b> 199
Estrogen receptor beta	55 <b>NYSV</b> <b>PS</b> <b>Sg</b> TGNLEGG <b>PV</b> 70
Microtubule-associated Protein 1B	2018 TTTKT <b>TR</b> <b>S</b> <b>P</b> DT <b>SAY</b> CYE 2034
Neurofilament L	38 <b>SAYSS</b> <b>Y</b> S <b>APV</b> <b>SgSgSg</b> L <b>Sg</b> VR 54
Neurofilament L	31 <b>SGYS</b> <b>Sg</b> TAR 37
Neurofilament M	43 <b>GS</b> <b>PSgTg</b> <b>V</b> <b>SgSgSg</b> <b>Y</b> KR 55
Piccolo	2941 <b>TTG</b> <b>PYP</b> <b>E</b> <b>Tg</b> R 2949
Piccolo	2949 QVISGIST <b>PQYS</b> <b>SgTg</b> AR 2966
Ponsin	1189 <b>TPVD</b> <b>Y</b> IDL <b>PYSgSgSg</b> <b>PSR</b> 1204
RNA-binding motif protein 14	275 AQ <b>PSgVSg</b> LG <b>APYR</b> 296
Vimentin	51 SL <b>YASg</b> <b>S</b> PGGV 60
Prohibitin	101 <b>SQL</b> <b>P</b> RIFTSIGED <b>Y</b> ERVL <b>PS</b> .....NIT <b>Y</b> LP 261

114 259

Note: Additional potential *O*-GlcNAc sites with proline at -1 or +3 positions are shown as bold letters (**S/T**).