

**SNAP-25 Family**

coiled coil

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SNAP-25 HS NT 19 DQLADESLESTRMLQLVESKQDAGIRTLVMDLDEQGEQLERIEEGMDQINLNDKMKAEKNTDL

SNAP-23 HS NT 14 HQITDESLESTRRLGLAIESQDAGIKTITMLDEQKEQLNRIEEGLDQINLNDKMRTEKTLTEL

Sec9p SC NT 434 KFTKQSSVASTRNTLTKMAQDAERAGMNTLGMGLGHQSEQLNNVEGNLDLMLKVQNKVADEKVAEL

Spo20p SC NT 179 RSTKLKSVKTTSRILEKATEARCTGKRVLQQLSCOSNQLTKIESNCDMLKIQSNVADRKIDEL

SNAP-25 HS CT 140 DARENEMDENLEOVSGIIGNLRHMALDMGNEIDTONROIDRIMEKADSNKTRIDEANORATKM

SNAP-23 HS CT 146 DAREDEMEENLTOVGSILGNLKDMLANI GNEIDAQNPQLKRITDKADTRNDRIDIANARAKKL

Sec9p SC CT 588 DEMELEIDRNLDQIQVSNRLKMMALTTGKELDSQKRLNNIEESTDLDINLHMNTNRLAGI

Spo20p SC CT 330 NQMEIDLGNLEQIKAVSGDLKIMAHAFGREFEAQNTRMFDIENNVOQADNALQAKRYRLEKV

Tsl1 HS RAYHQKIDSNLDEL SMGLGRLKDIALGMQTEIEEQDDILDRLITTKVKDLVNIKSTERKVRQL

Tsl15 HS TSLIPALSEADTQELTQILRRMKGLALEAESELERODEALDGVAAAVDRATLITDKHNRRMKRL

basic transmembrane

**Syntaxin Family**

Stx1a HS 192 LSEIETRHSFIKLENSIRELHDMFMDMAMLVESQGEMLDRIEYNVEHAVDYVERAVSDTKKAVKYOSKARRKK...IMIIICCVILGIVIAST

Stx2 HS 191 LNEIIESRHKDIMKLETSIRELHEMFMMDAMFVETQGEMLNINERNVMNATDYVEHAKKETKKAIKYOSKARRKK...WIIIAVSVVLVVIIVLI

Stx3 HS 191 LSEIEGRHKDVRLESSIKELHDMFMDIAMLVENQGEMLDNIELNVMHTVDHVEKARDESKKAVKYOSQARRKK...LIIIVLVVLLICILALI

Stx4 HS 200 LNEISARHSFIQQLERSIRELHDIFTFLETEVEMQGEMLNRIEKNILSSADYVERGQEHVKTALENOKKVRKKK...VLIATCVSITVVLAVI

Sso1p SC 190 LAEVQARHQLLKLKESMAELTQLFNDMEELVIEQGENVDVIDKNVEDAQLDVEQGVGHTDKAVKSARKARKNKIRCWLIIVFAIVVVVVVVV

Stx5 HS 209 DSYIQSRADTMQNIESTIVELGSIFFQQLAHMVKEQETIQRIDENVLGAQLDVEAAHSELKYFQSVTSNR.....WLMVKIFLILIVFFIIF

Sed5p SC 249 NVYLQERNRAVETIESTIQEVGNLFQQLASMVQEQEVIQRIDANVDDIDLNISGAQRELLKYFDRIKSNR.....WLAAKVFFIIEVFFVIW

Vam3p SC 190 TIIHQERSQOIGRIHTAVQEVNAIFHQLESILVKEQGEQVTTIDENISHLHDNMQNANKQITRADQHORDRNKCGK.VTLIIIVVCMVVLAVL

Stx7 HS 165 LRLIHERESSIRQLEADIMDINEIFKDLGMMIHEQGDVIDSIEANVENAEVHVQOANOQLSRAADYQRKSRRK...LCIITILNLVIGVAIISLII

Pep12p SC 195 QNLIEQRDQETSNIERGITELNEVFKDLGSVVQQGVLVDNIEANIYTTSDNTQLASDELRRKAMRYQKRTSR...WRVYLLIVLLVMLLFIIF

Tlg2p SC 244 EAYLRERDEETQLARGVLEVSTIFREMQLVVDQGTIVDRIDYNLENTVVELKSADKELNKATHYQKRTQCK...VILLTLCVIALFFVML

Ufel1p SC 255 LNQKNEQLKKVETINKTILDIVNIQNELSNHLTVQSONINLMLNQQDIELNLIKKNKELRRKAKRAAGRTAKMTT...YGAIIIMGVFIIFLDYVG

Sft1p SC 7 SQTESNDRKLEGLANKLATFRNINQEIGDRAVSDSSVINQMTDSLGSMTDIKNSSRRTLSIKAGNSIWRM...VGLALLIIVLIVLFFIIFKLI

**Bet1 Family**

Bet1p SC 52 ASLESQSEHQMGAMQORIKALKSLSLKMGDEIRGNSQTDIQDGTFTNNTSVKLRKTEGNNMEMARRSGISIK...TWLIIFFMVGVLFVWVI

rBET1 RN 26 NACEEENDRLTESLRSKVIALKSLSIEIGHEVKNQNKILAEBMSQFDSITGELGKTMGRKILSRGSKILL...CYMMLESLEVFVLIYWI

GS15 RN 15 EIVDRENKRADSLASKVTRKLSLALDIDRDTEQNRVYLDGMDSDFTSVTGLLTGVSVEFRSTVARSGRDRKLL...LCGMVVLIVAFFIISYLF

**Tsl Family**

Stx6 RN 163 QLIVEQODEQLELVSGSIGVLKNMSORTGGELEEQAVMLDDFSHELESTQSRLDNVNKKLAKVSHMTSDRRQ...WCAIATILFAVLLVLTTL

Tsl2 MM 142 QKIIEQODAGLDALSSIIISROKQMGQEIGNELDEONEIIDDLANLVENTDEKLRTEARVTLVDNRKSTSCG...MIMVILLLLVAVVAVV

Tlg1p SC 132 EQMLREQDVHLDGHIKTMONLHIQAQTMGDELENQGLLDNMDGMDGVNKLARGRQLEWVVEKNKEKYDDC.CIGLLIVLVIVLVLAFIA

Vam7p SC 250 MQMVRDQEQELVALHRIIOAQRGLALEMNEBELQTONELLTALEDDVDNTGRRLQIANKRAHFNNSA

Tsl3 HS QLIMDEQDQQLQEMVSGSIQVLKHMSSGRVGFELDEQGIIMLDFAAQEMDHTQSRMDGVLRKFGQSYPT

**Bos1 Family**

Bos1p SC 152 YQGLQKEQSVFERGNAQLDYILEMQQSFEENIVEONKILSKVQDRMSNGLRITLGVSEQITTSINKRVFKD...LVFWIALILLIIGIYYVVK

Membrin RN 121 DESLOF.NSSLQNIHHGMDLIGGGHSILEGLRAORLTLKGTQKKILDIANMLGLSNTVMRLIEKRAFQD...YFMIGGMLLTCVAMFLVV

Gos1p SC 135 DEYIQNETRTRIDOSNNVDRLLISQAWETRSQFHSQSNNVNTANNKVLQTLORIPGVNQLIMKINTRRKKNA...FVLATITITLCTIFLEET

GOS28 CG 161 ELFLKE.HDHLRNSDRLEEBTISIAMATKENMTSORGMKSIHSMNTLANRFPVNSLIQRINLKRKRS...LILGGVIGICTILLILLY

Vtilp SC 124 HAILQKSGDRLEKASRIANEITEGIGSQIMMDLRSORETLENARQTLFOADSYVDKSIKTLKTMTTRRLVANK...FTSYAIIAVLILLILLV

**Synaptobrevin VAMP Family**

Syb1 HS 25 PPNMTS.NRRLQQTQAQVEEVVDIIRVNVDKVLERDQKSELDDRADALQAGASQFESSAAKLRKYWKNCK...MMIMLGAICAIIVVVIV

Syb2 HS 22 PPNLTS.NRRLQQTQAQVDEVVDIMRVNVDKVLERDQKSELDDRADALQAGASQFETSAAKLRKYWKNCK...MMIILGVICAIILIIII

Syb3 HS 6 TAATGS.NRRLQQTQOQVDEVVDIMRVNVDKVLERDQKSELDDRADALQAGASQFETSAAKLRKYWKNCK...MWAIGITVIVLIIIIII

Snc1p SC 20 PQNVQS.KSETAELQAEIDDTVGIIMRDNINKVAERGERLTSIEDKADNLAVSAQGFRRGANVRKAMWYKDLK...MKMCLALVITILLVVII

SybL HS 115 HHSENKGLDKVMEQAQVDELKGIIMVRNIDLVAQRGERLELLIDKTEENLVDSVTFKFTSRNLARAMCMKNL...LTIHIIIVSIVFIYIIV

SAR1 AT 122 MAHPDE.ISKLAKVKAQVSEVKGVMENIEKVLDRGEKLELLVVKTESLNSSSNKFRKAVNIEKIMWQKVK...NKLVLATIIIALIIIII

Nyv1p SC 157 NGQNTI.SDIGDATEDQIKDVIQIMNDNIDKELERQERVSLLVDKTSLNSSSNKFRKAVNIEKIMWQKVK...NKLVLATIIIALIIIII

Sec22p SC 122 SYSDKKVQDNLQNLQELVGKQIMSKNIBDILLYRGDSLDKMSDMSSSLKETSRYRKSQAQKINFDLLISQYA...PIVIVAFFVFFLFWWIFL

mSec22b CG 126 YIDSRA.RRNLGSINTELQDVQRIIMVANIIEVLRGEALSALDSKANNLSSLSKKYRQDAKYLNMSTVAKLA...AVAVFFIMLIVYVRFWWL

Ykt6p SC 132 YQDPSQ.ADALMKVQOELDETKIIVLHKTIEENVLQGEKLDNLVVKSESLTASSKMFYQAKKSNSCCIIM.....

HsYkt6p HS 130 YQNPRE.ADPMTKVQAELEDETKIILHNTMBSILLERGEKLDLIVSKSEVIGTQSKAFYKTLARKQNSCCAIM.....