

## TIGD5 (I-17): sc-87455

### BACKGROUND

Syntabulin (Golgi-localized protein), also known as Syntaxin-1-binding protein, Golgi-localized syntaphilin-related protein, GOLSYN, SYBU, FLJ20366 or KIAA1472, is a 663 amino acid peripheral membrane-associated protein that forms a kinesin motor-adaptor complex responsible for anterograde trafficking of mitochondria to neuronal processes and activity-dependent presynaptic assembly during neuronal development. The gene encoding Syntabulin maps to human chromosome 8q23.2, and five Syntabulin isoforms as a result of alternative splicing events. While isoform 2 is not fully characterized, isoform 1 is known to colocalize with syntaxin vesicles and shows cytoplasmic, cytoskeletal and cytoplasmic vesicle localization. Isoforms 3, 4 and 5 (also known as GOLSYN A, C and B, respectively) are single-pass membrane proteins which localize to the Golgi apparatus membrane. Syntabulin is highly expressed in brain and amygdala, with lower levels of expression in lung, ovary, liver, skeletal muscle, pancreas and kidney.

### REFERENCES

1. Su, Q., Cai, Q., Gerwin, C., Smith, C.L. and Sheng, Z.H. 2004. Syntabulin is a microtubule-associated protein implicated in syntaxin transport in neurons. *Nat. Cell Biol.* 6: 941-953.
2. Funakoshi, E., Nakagawa, K.Y., Hamano, A., Hori, T., Shimizu, A., Asakawa, S., Shimizu, N. and Ito, F. 2005. Molecular cloning and characterization of gene for Golgi-localized syntaphilin-related protein on human chromosome 8q23. *Gene* 344: 259-271.
3. Cai, Q., Gerwin, C. and Sheng, Z.H. 2005. Syntabulin-mediated anterograde transport of mitochondria along neuronal processes. *J. Cell Biol.* 170: 959-969.
4. Funakoshi, E., Fukui, M., Hamano, A., Okamoto, H., Sugiyama, C., Nishiyama, N., Ogita, K., Hori, T., Shimizu, N. and Ito, F. 2006. Expression of m-Golsyn/Syntabulin gene during mouse brain development. *Neurosci. Lett.* 403: 244-249.
5. Cai, Q., Pan, P.Y. and Sheng, Z.H. 2007. Syntabulin-kinesin-1 family member 5B-mediated axonal transport contributes to activity-dependent presynaptic assembly. *J. Neurosci.* 27: 7284-7296.
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### CHROMOSOMAL LOCATION

Genetic locus: SYBU (human) mapping to 8q23.2; Sybu (mouse) mapping to 15 B3.2.

### SOURCE

TIGD5 (I-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TIGD5 of human origin.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87455 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Syntabulin (G-17) is recommended for detection of Syntabulin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Syntabulin (G-17) is also recommended for detection of Syntabulin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Syntabulin siRNA (h): sc-77772, Syntabulin siRNA (m): sc-153990, Syntabulin shRNA Plasmid (h): sc-77772-SH, Syntabulin shRNA Plasmid (m): sc-153990-SH, Syntabulin shRNA (h) Lentiviral Particles: sc-77772-V and Syntabulin shRNA (m) Lentiviral Particles: sc-153990-V.

Molecular Weight of TIGD5: 64 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.