Syne-1 (H-100): sc-99065



The Power to Question

BACKGROUND

Synaptic nuclear envelope protein-1 (Syne-1) is a member of the Golgi- and nuclear envelope-localized spectrin family, and it facilitates retrograde vesicular trafficking from the Golgi to the ER. Syne-1 is a 8,797 amino acid protein that contains several spectrin repeats similar to those in dystrophin and utrophin, 2 tandem calponin homology domains at its N-terminus, as well as a domain that is homologous to the C-terminal of Klarsicht, a *Drosophila* protein associated with nuclei and necessary for a few nuclear migrations. Syne-1 localizes to the Golgi apparatus and nuclear envelope until cytokinesis, when it migrates to the central spindle and midbody, where it functions together with KIF3B to assist the accumulation of the membrane vesicles at the spindle midbody.

REFERENCES

- Apel, E.D., Lewis, R.M., Grady, R.M. and Sanes, J.R. 2000. Syne-1, a dystrophin- and Klarsicht-related protein associated with synaptic nuclei at the neuromuscular junction. J. Biol. Chem. 275: 31986-31995.
- Zhang, Q., Skepper, J.N., Yang, F., Davies, J.D., Hegyi, L., Roberts, R.G., Weissberg, P.L., Ellis, J.A. and Shanahan, C.M. 2002. Nesprins: a novel family of spectrin- to the nuclear membrane in multiple tissues. J. Cell Sci. 114: 4485-4498.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608441. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Gough, L.L., Fan, J., Chu, S., Winnick, S. and Beck, K.A. 2003. Golgi localization of Syne-1. Mol. Biol. Cell 14: 2410-2424.
- Fan, J. and Beck, K.A. 2004. A role for the spectrin superfamily member Syne-1 and kinesin II in cytokinesis. J. Cell Sci. 117: 619-629.
- Gough, L.L. and Beck, K.A. 2004. The spectrin family member Syne-1 functions in retrograde transport from Golgi to ER. Biochim. Biophys. Acta 1693: 29-36.
- 7. Beck, K.A. 2005. Spectrins and the Golgi. Biochim. Biophys. Acta 1744: 374-382.
- Grady, R.M., Starr, D.A., Ackerman, G.L., Sanes, J.R. and Han, M. 2005.
 Syne proteins anchor muscle nuclei at the neuromuscular junction. Proc. Natl. Acad. Sci. USA 102: 4359-4364.
- 9. Warren, D.T., Zhang, Q., Weissberg, P.L. and Shanahan, C.M. 2005. Nesprins: intracellular scaffolds that maintain cell architecture and co-ordinate cell function? Expert Rev. Mol. Med. 7: 1-15.

CHROMOSOMAL LOCATION

Genetic locus: SYNE1 (human) mapping to 6q25.1; Syne1 (mouse) mapping to 10 A1.

SOURCE

Syne-1 (H-100) is a rabbit polyclonal antibody raised against amino acids 8537-8636 mapping near the C-terminus of Syne-1 of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Syne-1 (H-100) is recommended for detection of Syne-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

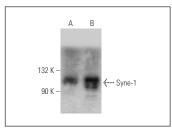
Syne-1 (H-100) is also recommended for detection of Syne-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Syne-1 siRNA (h): sc-61628, Syne-1 siRNA (m): sc-61629, Syne-1 shRNA Plasmid (h): sc-61628-SH, Syne-1 shRNA Plasmid (m): sc-61629-SH, Syne-1 shRNA (h) Lentiviral Particles: sc-61628-V and Syne-1 shRNA (m) Lentiviral Particles: sc-61629-V.

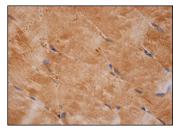
Molecular Weight of Syne-1: 112 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or SW-13 cell lysate: sc-24778.

DATA



Syne-1 (H-100): sc-99065. Western blot analysis of Syne-1 expression in SW-13 whole cell lysate (**A**) and HeLa nuclear extract (**B**).



Syne-1 (H-100): sc-99065. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

STORAGE

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

RESEARCH USE

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



Try **Syne-1 (3G2):** sc-293465, our highly recommended monoclonal alternative to Syne-1 (H-100).