SANTA CRUZ BIOTECHNOLOGY, INC.

Syne-1 (S-17): sc-51218

SANTA CRUZ BIOTECHNOLOGY

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

1. Apel, E.D., et al. 2000. Syne-1, a dystrophin- and Klarsicht-related protein associated with synaptic nuclei at the neuromuscular junction. J. Biol. Chem. 275: 31986-31995.
2. Zhang, Q., et al. 2002. Nesprins: a novel family of spectrin- to the nuclear membrane in multiple tissues. J. Cell Sci. 114: 4485-4498.

CHROMOSOMAL LOCATION

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

SOURCE

Syne-1 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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.

Blocking peptide available for competition studies, sc-51218 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Syne-1 (S-17) is recommended for detection of Syne-1 of human and, to a lesser extent, mouse and rat 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).

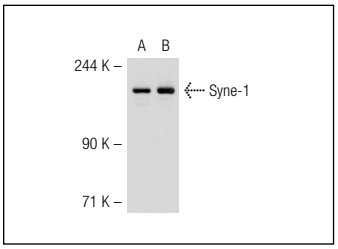
Suitable for use as control antibody for Syne-1 siRNA (h): sc-61628, Syne-1 siRNA (m): sc-61629, Syne-1 shRNA Plasmid (h): sc-61628-SH, Syne-1 shRNA Plasmid (m): sc-61629-SH, Syne-1 shRNA (h) Lentiviral Particles: sc-61628-V and Syne-1 shRNA (m)Lentiviral Particles: sc-61629-V.

Molecular Weight of Syne-1: 112 kDa.

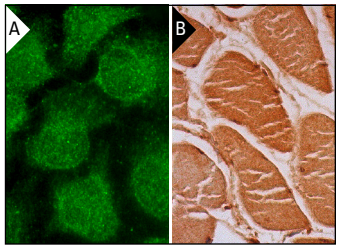
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Syne-1 (S-17): sc-51218. Western blot analysis of Syne-1 expression in non-transfected: sc-117752 (**A**) and mouse Syne-1 transfected: sc-123871 (**B**) 293T whole cell lysates.



Syne-1 (S-17): sc-51218. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **Syne-1 (3G2): sc-293465**, our highly recommended monoclonal alternative to Syne-1 (S-17).