

# Syne-2 (D-1): sc-365431

## BACKGROUND

Synaptic nuclear envelope protein 2 (Syne-2), also referred to as nesprin-2, is a 6,884 amino acid vertebrate protein that interacts with emerin and Lamin A at the nuclear envelope. Syne-2 is highly expressed in kidney, liver, stomach, placenta, spleen, lymphatic nodes and peripheral blood lymphocytes, but can be found in almost all types of cells. Syne-2 contains a C-terminal transmembrane domain (designated the KLS domain) linked by a spectrin-repeat rod domain, to an N-terminal paired, Actin-binding, calponin-homology domain. This structure suggests that Syne-2 is capable of mediating signaling between cell membranes and the cytoskeleton. The Syne-2 gene gives rise to many isoforms, which vary largely in size. Mutations in the Syne-2 gene may be linked to a broad range of human diseases, including laminopathies.

## REFERENCES

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7. Zhang, Q., et al. 2005. Nesprin-2 is a multi-isomeric protein that binds Lamin and emerin at the nuclear envelope and forms a subcellular network in skeletal muscle. *J. Cell Sci.* 118: 673-687.
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## CHROMOSOMAL LOCATION

Genetic locus: SYNE2 (human) mapping to 14q23.2.

## SOURCE

Syne-2 (D-1) is a mouse monoclonal antibody raised against amino acids 6554-6662 mapping near the C-terminus of Syne-2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Syne-2 (D-1) is recommended for detection of Syne-2 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Syne-2 siRNA (h): sc-61630, Syne-2 shRNA Plasmid (h): sc-61630-SH and Syne-2 shRNA (h) Lentiviral Particles: sc-61630-V.

Molecular Weight of Syne-2 isoforms: 75/400/800 kDa.

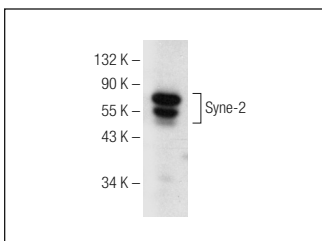
Positive Controls: HL-60 whole cell lysate: sc-2209.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Syne-2 (D-1): sc-365431. Western blot analysis of Syne-2 expression in HL-60 whole cell lysate.

## 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](http://www.scbt.com) for detailed protocols and support products.