SANTA CRUZ BIOTECHNOLOGY, INC.

SUN1 (D-17): sc-54445

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

UNC84A (UNC84 homolog A), also known as SUN1, is a multi-pass nuclear membrane protein that is involved in nuclear anchoring and migration. Highly expressed in heart, brain and testis, UNC84A functions as an A-type lamin-binding protein that forms a link between the inner and outer nuclear envelope membranes. This link acts as a structural bridge between the nuclear interior and the Actin cytoskeleton and is essential for proper localization of nuclear envelope proteins. Additionally, UNC84A may be involved in telomere attachment and in normal testis development. UNC84A contains one UNC84 (SUN) domain and exists as four isoforms due to alternative splicing events.

REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607723. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Padmakumar, V.C., Libotte, T., Lu, W., Zaim, H., Abraham, S., Noegel, A.A., Gotzmann, J., Foisner, R. and Karakesisoglou, I. 2005. The inner nuclear membrane protein SUN1 mediates the anchorage of Nesprin-2 to the nuclear envelope. J. Cell Sci. 118: 3419-3430.
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6. Hasan, S., Güttinger, S., Mühlhäusser, P., Anderegg, F., Bürgler, S. and Kutay, U. 2006. Nuclear envelope localization of human UNC84A does not require nuclear lamins. FEBS Lett. 580: 1263-1268.

CHROMOSOMAL LOCATION

Genetic locus: SUN1 (human) mapping to 7p22.3; Sun1 (mouse) mapping to 5 G1.

SOURCE

SUN1 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SUN1 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-54445 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SUN1 (D-17) is recommended for detection of SUN1 isoforms 1, 2 and 3 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), 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).

SUN1 (D-17) is also recommended for detection of SUN1 isoforms 1, 2 and 3 in additional species, including canine.

Suitable for use as control antibody for SUN1 siRNA (h): sc-106672, SUN1 siRNA (m): sc-108011, SUN1 shRNA Plasmid (h): sc-106672-SH, SUN1 shRNA Plasmid (m): sc-108011-SH, SUN1 shRNA (h) Lentiviral Particles: sc-106672-V and SUN1 shRNA (m) Lentiviral Particles: sc-108011-V.

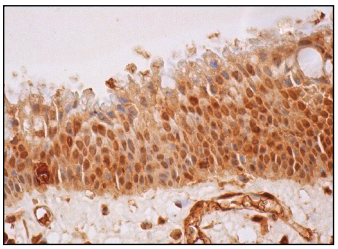
Molecular Weight of SUN1: 100 kDa.

Positive Controls: SK-N-MC nuclear extract: sc-2154.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



SUN1 (D-17): sc-54445. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

RESEARCH USE

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