

SID-2 (N-20): sc-54151

BACKGROUND

SID-1 and SID-2 belong to the systemic RNA interference defective-1 (SID1) family of transmembrane proteins. SID-1, originally identified in *C. elegans*, is an 827 amino acid long protein. It localizes to the cell membrane and contains 11 transmembrane domains. This suggests that SID-1 possibly functions as a channel protein. The overexpression of SID-1 enhances double stranded RNA (dsRNA) uptake in pancreatic ductal adenocarcinoma cells. SID-2, also first identified in *C. elegans*, is an 832 amino acid long protein with multiple transmembrane domains. At least two isoforms exist for SID-2 due to alternative splicing. Isoform 2 contains an additional 21 amino acids after residue 387 and has an alternate sequence that is 8 amino acids shorter for residues 814 to 832 of isoform 1.

REFERENCES

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3. Duxbury, M.S., Ashley, S.W. and Whang, E.E. 2005. RNA interference: a mammalian SID-1 homologue enhances siRNA uptake and gene silencing efficacy in human cells. *Biochem. Biophys. Res. Commun.* 331: 459-463.
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6. Tsang, S.Y., Moore, J.C., Huizen, R.V., Chan, C.W. and Li, R.A. 2007. Ectopic expression of systemic RNA interference defective protein in embryonic stem cells. *Biochem. Biophys. Res. Commun.* 357: 480-486.
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CHROMOSOMAL LOCATION

Genetic locus: SIRT2 (human) mapping to 11q23.3; Sidt2 (mouse) mapping to 9 A5.2.

SOURCE

SID-2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of SID-2 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-54151 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SID-2 (N-20) is recommended for detection of SID-2 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).

SID-2 (N-20) is also recommended for detection of SID-2 in additional species, including equine, bovine and porcine.

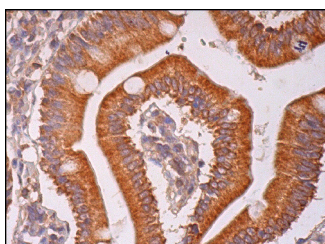
Suitable for use as control antibody for SID-2 siRNA (h): sc-72282, SID-2 siRNA (m): sc-72283, SID-2 shRNA Plasmid (h): sc-72282-SH, SID-2 shRNA Plasmid (m): sc-72283-SH, SID-2 shRNA (h) Lentiviral Particles: sc-72282-V and SID-2 shRNA (m) Lentiviral Particles: sc-72283-V.

Molecular Weight of SID-2: 104 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) 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



SID-2 (N-20): sc-54151. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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