SANTA CRUZ BIOTECHNOLOGY, INC.

SURF-4 (S-12): sc-107304

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SURF-4 (surfeit 4), also known as ERV29, is a 269 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum and contains several putative transmembrane regions. Existing as multiple alternatively spliced isoforms, SURF-4 is thought to be involved in protein transport between the endoplasmic reticulum and golgi compartments. Human SURF-4 shares 99% sequence identity with its mouse counterpart, strongly suggesting a conserved role between species. The gene encoding SURF-4 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

1. Reeves, J.E. and Fried, M. 1995. The SURF-4 gene encodes a novel 30 kDa integral membrane protein. Mol. Membr. Biol. 12: 201-208.
2. Garson, K., Duhig, T. and Fried, M. 1996. Tissue-specific processing of the SURF-5 and SURF-4 mRNAs. Gene Expr. 6: 209-218.
3. Duhig, T., Ruhrberg, C., Mor, O. and Fried, M. 1998. The human Surfeit locus. Genomics 52: 72-78.
4. Belden, W.J. and Barlowe, C. 2001. Role of ERV29p in collecting soluble secretory proteins into ER-derived transport vesicles. Science 294: 1528-1531.
5. Breuza, L., Halbeisen, R., Jenö, P., Otte, S., Barlowe, C., Hong, W. and Hauri, H.P. 2004. Proteomics of endoplasmic reticulum-Golgi intermediate compartment (ERGIC) membranes from brefeldin A-treated Hep G2 cells identifies ERGIC-32, a new cycling protein that interacts with human ERV46. J. Biol. Chem. 279: 47242-47253.

CHROMOSOMAL LOCATION

Genetic locus: SURF4 (human) mapping to 9q34.2; Surf4 (mouse) mapping to 2 A3.

SOURCE

SURF-4 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SURF-4 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-107304 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

SURF-4 (S-12) is recommended for detection of SURF-4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with family members SURF-1, SURF-2 or SURF-6.

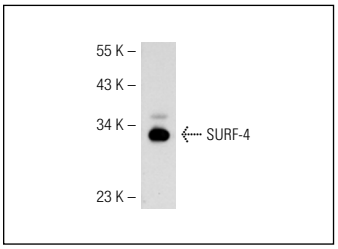
SURF-4 (S-12) is also recommended for detection of SURF-4 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for SURF-4 siRNA (h): sc-92607, SURF-4 siRNA (m): sc-153935, SURF-4 shRNA Plasmid (h): sc-92607-SH, SURF-4 shRNA Plasmid (m): sc-153935-SH, SURF-4 shRNA (h) Lentiviral Particles: sc-92607-V and SURF-4 shRNA (m) Lentiviral Particles: sc-153935-V.

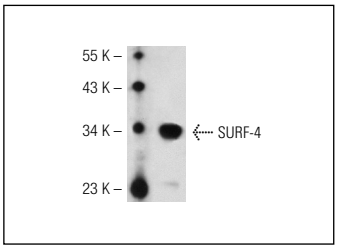
Molecular Weight of SURF-4: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

DATA



SURF-4 (S-12): sc-107304. Western blot analysis of SURF-4 expression in HeLa whole cell lysate.



SURF-4 (S-12): sc-107304. Western blot analysis of SURF-4 expression in Jurkat whole cell lysate.

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.