

cytohesin-4 (I-16): sc-67545

BACKGROUND

cytohesin-4, also known as CYT4 or PSCD4 (pleckstrin homology, Sec7 and coiled-coil domains 4), is a 394 amino acid ADP-ribosylation factor (ARF) that functions as a guanine nucleotide-exchange protein (GEP). Expressed primarily in blood leukocytes with minimal expression observed in the thymus and spleen, cytohesin-4 has a C-terminal pleckstrin homology (PH) domain, an N-terminal coiled-coil motif and a central Sec7 domain. The PH domain is responsible for membrane and phospholipid interaction, while the coiled-coil motif mediates homodimerization. The Sec7 domain of cytohesin-4 exhibits the GEP activity which, *in vitro*, can promote guanine nucleotide-exchange with both ARF1 and ARF5.

REFERENCES

- Ogasawara, M., Kim, S.C., Adamik, R., Togawa, A., Ferrans, V.J., Takeda, K., Kirby, M., Moss, J. and Vaughan, M. 2000. Similarities in function and gene structure of cytohesin-4 and cytohesin-1, guanine nucleotide-exchange proteins for ADP-ribosylation factors. *J. Biol. Chem.* 275: 3221-3230.
- Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606514. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Suzuki, I., Owada, Y., Suzuki, R., Yoshimoto, T. and Kondo, H. 2002. Localization of mRNAs for subfamily of guanine nucleotide-exchange proteins (GEP) for ARFs (ADP-ribosylation factors) in the brain of developing and mature rats under normal and postaxotomy conditions. *Brain Res. Mol. Brain Res.* 98: 41-50.
- Mansour, M., Lee, S.Y. and Pohajdak, B. 2002. The N-terminal coiled-coil domain of the cytohesin/ARNO family of guanine nucleotide exchange factors interacts with the scaffolding protein CASP. *J. Biol. Chem.* 277: 32302-32309.
- Hofmann, I., Thompson, A., Sanderson, C.M. and Munro, S. 2007. The ARL4 family of small G proteins can recruit the cytohesin ARF6 exchange factors to the plasma membrane. *Curr. Biol.* 17: 711-716.

CHROMOSOMAL LOCATION

Genetic locus: CYTH4 (human) mapping to 22q13.1.

SOURCE

cytohesin-4 (I-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of cytohesin-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-67545 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

cytohesin-4 (I-16) is recommended for detection of cytohesin-4 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

cytohesin-4 (I-16) is also recommended for detection of cytohesin-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cytohesin-4 siRNA (h): sc-62188, cytohesin-4 shRNA Plasmid (h): sc-62188-SH and cytohesin-4 shRNA (h) Lentiviral Particles: sc-62188-V.

Molecular Weight of cytohesin-4: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

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.