

Cytohesin-4 (G-14): sc-67544

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., et al. 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., et al. 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., et al. 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., et al. 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: Pscd4 (mouse) mapping to 15 E1.

SOURCE

cytohesin-4 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of cytohesin-4 of mouse 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-67544 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 (G-14) is recommended for detection of cytohesin-4 of mouse and rat 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).

cytohesin-4 (G-14) is also recommended for detection of cytohesin-4 in additional species, including canine, bovine and porcine.

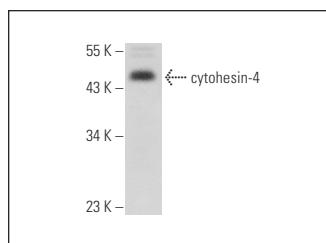
Suitable for use as control antibody for cytohesin-4 siRNA (h): sc-62188, cytohesin-4 shRNA Plasmid (h): sc-62188-SH and cytohesin-4 shRNA (h) Lentiviral Particles: sc-62188-V.

Molecular Weight of cytohesin-4: 47 kDa.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



cytohesin-4 (G-14): sc-67544. Western blot analysis of cytohesin-4 expression in HeLa 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.