HPS-4 (M-146): sc-98836



The Power to Question

BACKGROUND

Hermansky-Pudlak syndrome (HPS) is a rare, genetically heterogeneous, autosomal recessive disorder. It is characterized by oculocutaneous albinism, lysosomal storage defects and prolonged bleeding due to platelet storage pool deficiency. There are ten HPS genes encoding HPS proteins that all interact within three distinct, ubiquitously expressed protein complexes or biogenesis of lysosome-related organelle complexes. Defects in these genes cause HPS. HPS-4, also designated light-ear protein homolog, is important in organelle biosynthesis. Defects in the gene encoding for the HSP-4 protein, can cause Hermansky-Pudlak syndrome 4 (HPS-4).

REFERENCES

- Hirosawa, M., Nagase, T., Murahashi, Y., Kikuno, R. and Ohara, O. 2001. Identification of novel transcribed sequences on human chromosome 22 by expressed sequence tag mapping. DNA Res. 8: 1-9.
- Suzuki, T., Li, W., Zhang, Q., Karim, A., Novak, E.K., Sviderskaya, E.V., Hill, S.P., Bennett, D.C., Levin, A.V., Nieuwenhuis, H.K., Fong, C.T., Castellan, C., Miterski, B., Swank, R.T. and Spritz, R.A. 2002. Hermansky-Pudlak syndrome is caused by mutations in HPS4, the human homolog of the mouse lightear gene. Nat. Genet. 30: 321-324.
- 3. Huizing, M., Boissy, R.E. and Gahl, W.A. 2002. Hermansky-Pudlak syndrome: vesicle formation from yeast to man. Pigment Cell Res. 15: 405-419.
- Anderson, P.D., Huizing, M., Claassen, D.A., White, J. and Gahl, W.A. 2003. Hermansky-Pudlak syndrome type 4 (HPS-4): clinical and molecular characteristics. Hum. Genet. 113: 10-17.
- Nazarian, R., Falcón-Pérez, J.M. and Dell'Angelica, E.C. 2003. Biogenesis
 of lysosome-related organelles complex 3 (BLOC-3): a complex containing
 the Hermansky-Pudlak syndrome (HPS) proteins HPS-1 and HPS-4. Proc.
 Natl. Acad. Sci. USA 100: 8770-8775.
- 6. Bachli, E.B., Brack, T., Eppler, E., Stallmach, T., Trüeb, R.M., Huizing, M. and Gahl, W.A. 2004. Hermansky-Pudlak syndrome type 4 in a patient from Sri Lanka with pulmonary fibrosis. Am. J. Med. Genet. A 127: 201-207.

CHROMOSOMAL LOCATION

Genetic locus: HPS4 (human) mapping to 22q12.1; Hps4 (mouse) mapping to 5 F.

SOURCE

HPS-4 (M-146) is a rabbit polyclonal antibody raised against amino acids 526-671 mapping at the C-terminus of HPS-4 of mouse origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

HPS-4 (M-146) is recommended for detection of HPS-4 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for HPS-4 siRNA (h): sc-44420, HPS-4 siRNA (m): sc-444996, HPS-4 shRNA Plasmid (h): sc-44420-SH, HPS-4 shRNA Plasmid (m): sc-44996-SH, HPS-4 shRNA (h) Lentiviral Particles: sc-44420-V and HPS-4 shRNA (m) Lentiviral Particles: sc-44996-V.

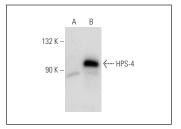
Molecular Weight of HPS-4: 77 kDa.

Positive Controls: HPS-4 (h): 293T Lysate: sc-117112.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HPS-4 (M-146): sc-98836. Western blot analysis of HPS-4 expression in non-transfected: sc-117752 (A) and human HPS-4 transfected: sc-117112 (B) 293T whole cell Ivsates.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com