

# BLOS3 (T-13): sc-167213

## BACKGROUND

BLOS3, also known as BLOC1S3 (biogenesis of lysosome-related organelles complex 1 subunit 3), is a 202 amino acid protein that belongs to the BLOC1S3 family. BLOS3, along with BLOS1 and BLOS2, are subunits of biogenesis of lysosome-related organelles complex-1 (BLOC1). Localizing to cytoplasm, BLOS3 plays a role in intracellular vesicle trafficking and is required for normal biogenesis of specialized organelles of the endosomal-lysosomal system, such as melanosomes and platelet dense granules. Defects in BLOS3 are the cause of Hermansky-Pudlak syndrome type 8 (HPS8). Hermansky-Pudlak syndrome (HPS) is a genetically heterogeneous and rare autosomal recessive disorder characterized by oculocutaneous albinism, bleeding due to platelet storage pool deficiency and lysosomal storage defects. This syndrome results from defects of diverse cytoplasmic organelles, including melanosomes, platelet dense granules and lysosomes. The BLOS3 gene maps to chromosome 19q13.32.

## REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609762. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Morgan, N.V., et al. 2006. A germline mutation in BLOC1S3/reduced pigmentation causes a novel variant of Hermansky-Pudlak syndrome (HPS8). *Am. J. Hum. Genet.* 78: 160-166.
4. Nazarian, R., et al. 2006. Reinvestigation of the dysbindin subunit of BLOC-1 (biogenesis of lysosome-related organelles complex-1) as a dystrobrevin-binding protein. *Biochem. J.* 395: 587-598.
5. Di Pietro, S.M., et al. 2006. BLOC-1 interacts with BLOC-2 and the AP-3 complex to facilitate protein trafficking on endosomes. *Mol. Biol. Cell* 17: 4027-4038.
6. Setty, S.R., et al. 2007. BLOC-1 is required for cargo-specific sorting from vacuolar early endosomes toward lysosome-related organelles. *Mol. Biol. Cell* 18: 768-780.
7. Setty, S.R., et al. 2008. Cell-specific ATP7A transport sustains copper-dependent tyrosinase activity in melanosomes. *Nature* 454: 1142-1146.
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## CHROMOSOMAL LOCATION

Genetic locus: BLOC1S3 (human) mapping to 19q13.32; Bloc1s3 (mouse) mapping to 7 A3.

## SOURCE

BLOS3 (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BLOS3 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-167213 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

BLOS3 (T-13) is recommended for detection of BLOS3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with BLOS1 or BLOS2.

Suitable for use as control antibody for BLOS3 siRNA (h): sc-97284, BLOS3 siRNA (m): sc-141713, BLOS3 shRNA Plasmid (h): sc-97284-SH, BLOS3 shRNA Plasmid (m): sc-141713-SH, BLOS3 shRNA (h) Lentiviral Particles: sc-97284-V and BLOS3 shRNA (m) Lentiviral Particles: sc-141713-V.

Molecular Weight of BLOS3: 21 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.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.