# SANTA CRUZ BIOTECHNOLOGY, INC.

# Muted (K-13): sc-47193



# BACKGROUND

Biogenesis of lysosome-related organelles complex-1 (BLOC-1) is a multisubunit protein necessary for biogenesis of specialized organelles of the endosomal-lysosomal system (such as melanosomes and platelet-dense granules). The complex consists of coiled-coil-forming proteins Snapin, pallidin, Cappuc-cino, Muted, BLOS1, BLOS2 and BLOS3. The localization of these proteins varies as they can be cytoplasmic, peripheral membrane bound or anchored to the vesicular membrane. The Muted (mu) mouse is a model for Hermansky-Pudlak Syndrome (HPS), an inherited disorder in humans causing hypopigmentation, hemorrhaging and early death due to lung abnormalities. The Muted gene is ubiquitously expressed with higher levels in brain, bone marrow, kidney and liver and lower levels in skeletal muscle.

### REFERENCES

- Zhang, Q., et al. 2002. The gene for the Muted (mu) mouse, a model for Hermansky-Pudlak syndrome, defines a novel protein which regulates vesicle trafficking. Hum. Mol. Genet. 11: 697-706.
- Li, W., et al. 2003. Hermansky-Pudlak syndrome type 7 (HPS-7) results from mutant Dysbindin, a member of the biogenesis of lysosome-related organelles complex 1 (BL0C-1). Nat. Genet. 35: 84-89.
- Ciciotte, S.L., et al. 2003. Cappuccino, a mouse model of Hermansky-Pudlak syndrome, encodes a novel protein that is part of the pallidin-Muted complex (BLOC-1). Blood 101: 4402-4407.
- Gwynn, B., et al. 2004. Reduced pigmentation (rp), a mouse model of Hermansky-Pudlak syndrome, encodes a novel component of the BLOC-1 complex. Blood 104: 3181-3189.
- Starcevic, M., et al. 2004. Identification of Snapin and three novel proteins (BLOS1, BLOS2, and BLOS3/reduced pigmentation) as subunits of biogenesis of lysosome-related organelles complex-1 (BLOC-1). J. Biol. Chem. 279: 28393-28401.
- Bossi, G., et al. 2005. Normal lytic granule secretion by cytotoxic T lymphocytes deficient in BLOC-1, -2 and -3 and Myosins Va, VIIa and XV. Traffic 6: 243-251.

#### CHROMOSOMAL LOCATION

Genetic locus: MUTED (human) mapping to 6p24.3; Muted (mouse) mapping to 13 A3.3.

## SOURCE

Muted (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Muted of human origin.

# PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47193 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

Muted (K-13) is recommended for detection of Muted 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).

Muted (K-13) is also recommended for detection of Muted in additional species, including bovine.

Suitable for use as control antibody for Muted siRNA (h): sc-61108, Muted siRNA (m): sc-61109, Muted shRNA Plasmid (h): sc-61108-SH, Muted shRNA Plasmid (m): sc-61109-SH, Muted shRNA (h) Lentiviral Particles: sc-61108-V and Muted shRNA (m) Lentiviral Particles: sc-61109-V.

Molecular Weight of Muted: 24 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: 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<sup>™</sup> 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 or our catalog for detailed protocols and support products.



Try **Muted (F-4): sc-393554**, our highly recommended monoclonal alternative to Muted (K-13).