

Muted (F-4): sc-393554



The Power to Question

BACKGROUND

Biogenesis of lysosome-related organelles complex-1 (BLOC-1) is a multi-subunit 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, Cappuccino, 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

1. 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.
2. 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 (BLOC-1). *Nat. Genet.* 35: 84-89.
3. 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.
4. 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.
5. 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.

CHROMOSOMAL LOCATION

Genetic locus: BLOC1S5 (human) mapping to 6p24.3.

SOURCE

Muted (F-4) is a mouse monoclonal antibody raised against amino acids 64-187 mapping at the C-terminus of Muted of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Muted (F-4) is available conjugated to agarose (sc-393554 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393554 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393554 PE), fluorescein (sc-393554 FITC), Alexa Fluor® 488 (sc-393554 AF488), Alexa Fluor® 546 (sc-393554 AF546), Alexa Fluor® 594 (sc-393554 AF594) or Alexa Fluor® 647 (sc-393554 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393554 AF680) or Alexa Fluor® 790 (sc-393554 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Muted (F-4) is recommended for detection of Muted of human origin by Western Blotting (starting dilution 1:100, 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).

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

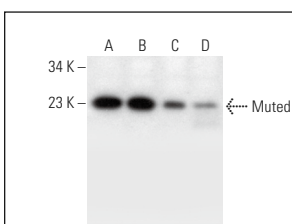
Molecular Weight of Muted: 24 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Y79 cell lysate: sc-2240 or HeLa whole cell lysate: sc-2200.

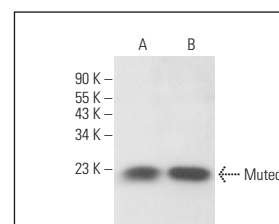
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Muted (F-4): sc-393554. Western blot analysis of Muted expression in HL-60 (A), Y79 (B), HeLa (C) and MDA-MB-435S (D) whole cell lysates.



Muted (F-4): sc-393554. Western blot analysis of Muted expression in HL-60 (A) and AN3 CA (B) whole cell lysates.

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 for detailed protocols and support products.

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