

# Munc13-4 (H-150): sc-50465

## BACKGROUND

Munc13-4 is a member of the Munc13 family and is a homolog to Munc13-1. Munc13-4 lacks the C1 domain and N-terminal extension that are present in other Munc13 family members. It is a peripheral membrane, GTP-Rab 27a-binding protein. Munc13-4 has an ubiquitous tissue distribution, however, unlike related proteins Munc13-1, -2 and -3, Munc13-4 is mainly expressed outside the nervous system. High expression levels of Munc13-4 have been seen in mucous goblet and alveolar type II cells of the lung, as well as in cytotoxic T lymphocytes and mast cells. Munc13-4 localizes to secretory lysosomes. Overexpression of Munc13-4 enhances degranulation of mast cell secretory lysosomes, suggesting that it positively regulates secretory lysosome fusion and exocytosis. Mutations in Munc13-4 cause familial hemophagocytosis subtype 3.

## CHROMOSOMAL LOCATION

Genetic locus: UNC13D (human) mapping to 17q25.1; Unc13d (mouse) mapping to 11 E2.

## SOURCE

Munc13-4 (H-150) is a rabbit polyclonal antibody raised against amino acids 136-285 mapping near the N-terminus of Munc13-4 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.

## STORAGE

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

## APPLICATIONS

Munc13-4 (H-150) is recommended for detection of Munc13-4 of mouse, rat and human 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).

Munc13-4 (H-150) is also recommended for detection of Munc13-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Munc13-4 siRNA (h): sc-62651, Munc13-4 siRNA (m): sc-62652, Munc13-4 shRNA Plasmid (h): sc-62651-SH, Munc13-4 shRNA Plasmid (m): sc-62652-SH, Munc13-4 shRNA (h) Lentiviral Particles: sc-62651-V and Munc13-4 shRNA (m) Lentiviral Particles: sc-62652-V.

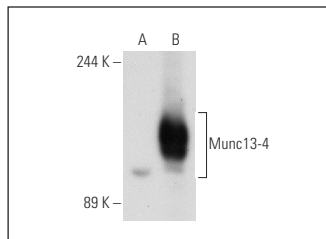
Molecular Weight of Munc13-4: 120 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Munc13-4 (h): 293T Lysate: sc-177578.

## 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



Munc13-4 (H-150): sc-50465. Western blot analysis of Munc13-4 expression in non-transfected: sc-117752 (A) and human Munc13-4 transfected: sc-177578 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Tsai, S.J., et al. 2012. Overexpression of myeloid zinc finger 1 suppresses matrix metalloproteinase-2 expression and reduces invasiveness of SiHa human cervical cancer cells. *Biochem. Biophys. Res. Commun.* 425: 462-467.

## 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.

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Try **Munc13-4 (C-2): sc-271300** or **Munc13-4 (C-12): sc-271301**, our highly recommended monoclonal alternatives to Munc13-4 (H-150).