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Goat Anti-Munc13-4 / UNC13D (Internal) Antibody

Peptide-affinity purified goat antibody
Catalog # AF1695b

Specification

Goat Anti-Munc13-4 / UNC13D (Internal) Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q70J99
Other Accession	NP_954712, 201294, 70450 (mouse), 192177 (rat)
Reactivity	**Human, Mouse**
Predicted	**Rat, Pig, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**123282**

Goat Anti-Munc13-4 / UNC13D (Internal) Antibody - Additional Information

Gene ID 201294

Other Names
Protein unc-13 homolog D, Munc13-4, UNC13D

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Munc13-4 / UNC13D (Internal) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Munc13-4 / UNC13D (Internal) Antibody - Protein Information

Name UNC13D

Function
Plays a role in cytotoxic granule exocytosis in lymphocytes. Required for both granule maturation and granule docking and priming at the immunologic synapse. Regulates assembly of recycling and late endosomal structures, leading to the formation of an endosomal exocytic compartment that fuses with perforin-containing granules at the immunologic synapse and licences them for exocytosis. Regulates Ca(2+)- dependent secretory lysosome exocytosis in mast cells.

Cellular Location
Cytoplasm. Membrane; Peripheral membrane protein. Late endosome. Recycling endosome. Lysosome. Note=Colocalizes with cytotoxic granules at the plasma membrane. Localizes to endosomal exocytic vesicles

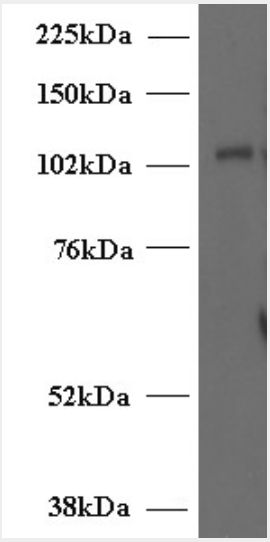
Tissue Location
Expressed at high levels in spleen, thymus and leukocytes. Also expressed in lung and placenta, and at very low levels in brain, heart, skeletal muscle and kidney. Expressed in cytotoxic T-lymphocytes (CTL) and mast cells.

Goat Anti-Munc13-4 / UNC13D (Internal) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-Munc13-4 / UNC13D (Internal) Antibody - Images



AF1695b (2 µg/ml) staining of Human T-lymphocyte lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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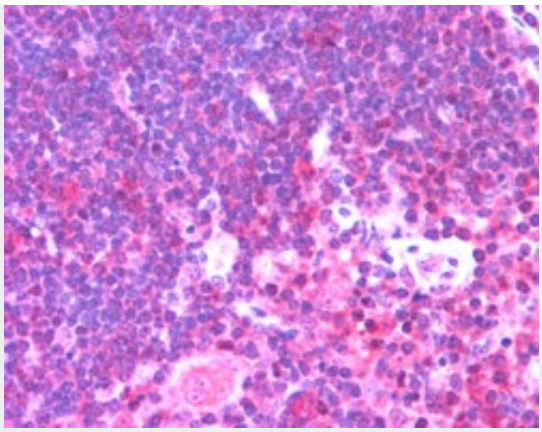
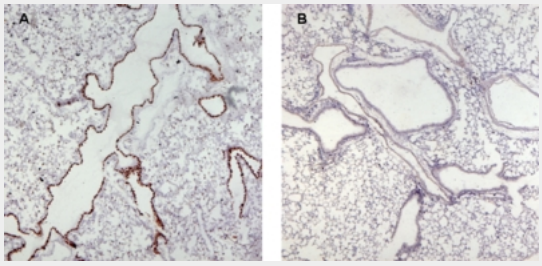


AF1695b (2.5 µg/ml) staining of paraffin embedded Human Thymus. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1695b (0.5 µg/ml) staining of paraffin embedded Mouse Lung (wt in A and KO in B) .

Goat Anti-Munc13-4 / UNC13D (Internal) Antibody - Background

This gene encodes a protein that is a member of the UNC13 family, containing similar domain structure as other family members but lacking an N-terminal phorbol ester-binding C1 domain present in other Munc13 proteins. The protein appears to play a role in vesicle maturation during exocytosis and is involved in regulation of cytolytic granules secretion. Mutations in this gene are associated with familial hemophagocytic lymphohistiocytosis type 3, a genetically heterogeneous, rare autosomal recessive disorder.

Goat Anti-Munc13-4 / UNC13D (Internal) Antibody - References

UNC13D is the predominant causative gene with recurrent splicing mutations in Korean patients with familial hemophagocytic lymphohistiocytosis. Yoon HS, et al. Haematologica, 2010 Apr. PMID 20015888.
Different NK cell-activating receptors preferentially recruit Rab27a or Munc13-4 to perforin-containing granules for cytotoxicity. Wood SM, et al. Blood, 2009 Nov 5. PMID 19704116.
Neonatal primary hemophagocytic lymphohistiocytosis in Turkish children. Gurgey A, et al. J Pediatr Hematol Oncol, 2008 Dec. PMID 19131769.
Microbe sensing, positive feedback loops, and the pathogenesis of inflammatory diseases. Beutler B. Immunol Rev, 2009 Jan. PMID 19120489.
Macrophage activation syndrome in patients with systemic juvenile idiopathic arthritis is associated with MUNC13-4 polymorphisms. Zhang K, et al. Arthritis Rheum, 2008 Sep. PMID 18759271.