

LIMP II (C-18): sc-25869

BACKGROUND

Lysosomes are intracytoplasmic organelles that are found within leukocytes (granulocytes, neutrophils, basophils and eosinophils) and function as storage granules for small particles. Lysosomes actively support subcellular protein degradation mechanisms through fusion with cellular organelles such as phagocytic vacuoles and the plasma membrane. Lysosome fusion to the plasma membrane, known as exocytosis, releases the contents of the vesicle into the extracellular environment. The lysosomal integral membrane proteins I-III, known as LIMP-I, LIMP-II and LIMP-III, localize from the *trans*-Golgi network to lysosomes via an AP-3-dependent pathway that may involve AP-1 and clathrin. LIMP I-III are protein markers for the lysosome organelle. These markers are exceptionally useful for microscopy studies, cellular fractionation validation and studies pertaining to protein trafficking through the secretory pathway.

REFERENCES

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- Honing, S., et al. 1996. The tyrosine-based lysosomal targeting signal in LAMP-1 mediates sorting into Golgi-derived clathrin-coated vesicles. *EMBO J.* 15: 5230-5239.
- Crombie, R. and Silverstein, R. 1998. Lysosomal integral membrane protein II binds thrombospondin-1. Structure-function homology with the cell adhesion molecule CD36 defines a conserved recognition motif. *J. Biol. Chem.* 273: 4855-4863.
- Le Borgne, R., et al. 1998. The mammalian AP-3 adaptor-like complex mediates the intracellular transport of lysosomal membrane glycoproteins. *J. Biol. Chem.* 273: 29451-29461.
- Rohn, W.M., et al. 2000. Bi-directional trafficking between the trans-Golgi network and the endosomal/lysosomal system. *J. Cell. Sci.* 113: 2093-2101.

CHROMOSOMAL LOCATION

Genetic locus: SCARB2 (human) mapping to 4q21.1; Scarb2 (mouse) mapping to 5 E2.

SOURCE

LIMP II (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LIMP II 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-25869 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LIMP II (C-18) is recommended for detection of LIMP II 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).

LIMP II (C-18) is also recommended for detection of LIMP II in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LIMP II siRNA (h): sc-41546, LIMP II siRNA (m): sc-41547, LIMP II shRNA Plasmid (h): sc-41546-SH, LIMP II shRNA Plasmid (m): sc-41547-SH, LIMP II shRNA (h) Lentiviral Particles: sc-41546-V and LIMP II shRNA (m) Lentiviral Particles: sc-41547-V.

Molecular Weight of LIMP II: 72 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, HeLa whole cell lysate: sc-2200 or Y79 cell lysate: sc-2240.

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 or our catalog for detailed protocols and support products.



Try **LIMP II (D-3): sc-55570** or **LIMP II (D-4): sc-55571**, our highly recommended monoclonal alternatives to LIMP II (C-18).