SANTA CRUZ BIOTECHNOLOGY, INC.

LIMP II (h): 293 Lysate: sc-111151

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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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2. McIntyre, G.F. and Erickson, A.H. 1993. The lysosomal proenzyme receptor that binds procathepsin L to microsomal membranes at pH 5 is a 43 kDa integral membrane protein. Proc. Natl. Acad. Sci. USA 90: 10588-10592.
3. Honing, S., Griffith, J., Geuze, H.J. and Hunziker, W. 1996. The tyrosine-based lysosomal targeting signal in LAMP-1 mediates sorting into Golgi-derived Clathrin-coated vesicles. EMBO J. 15: 5230-5239.
4. 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.
5. Le Borgne, R., Alconada, A., Bauer, U. and Hoflack, B. 1998. The mammalian AP-3 adaptor-like complex mediates the intracellular transport of lysosomal membrane glycoproteins. J. Biol. Chem. 273: 29451-29461.
6. Rohn, W.M., Rouillé, Y., Waguri, S. and Hoflack, B. 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.

PRODUCT

LIMP II (h): 293 Lysate represents a lysate of human LIMP II transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

LIMP II (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive LIMP II antibodies. Recommended use: 10-20 µl per lane.

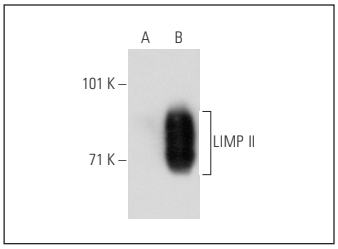
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

LIMP II (D-3): sc-55570 is recommended as a positive control antibody for Western Blot analysis of enhanced human LIMP II expression in LIMP II transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



LIMP II (D-3): sc-55570. Western blot analysis of LIMP II expression in non-transfected: sc-110760 (**A**) and human LIMP II transfected: sc-111151 (**B**) 293 whole cell lysates.

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.