SANTA CRUZ BIOTECHNOLOGY, INC.

LIMP II (D-3): sc-55570

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.

CHROMOSOMAL LOCATION

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

SOURCE

LIMP II (D-3) is a mouse monoclonal antibody raised against amino acids 249-478 mapping at the C-terminus of LIMP II of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LIMP II (D-3) is available conjugated to agarose (sc-55570 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-55570 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-55570 PE), fluorescein (sc-55570 FITC), Alexa Fluor® 488 (sc-55570 AF488), Alexa Fluor® 546 (sc-55570 AF546), Alexa Fluor® 594 (sc-55570 AF594) or Alexa Fluor® 647 (sc-55570 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-55570 AF680) or Alexa Fluor® 790 (sc-55570 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LIMP II (D-3) is recommended for detection of LIMP II of mouse, rat and human origin by Western Blotting (starting dilution 1:1000, dilution range 1:1000-1:10000), 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), immunohistochemistry (including paraffin-embedded sections) (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 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.

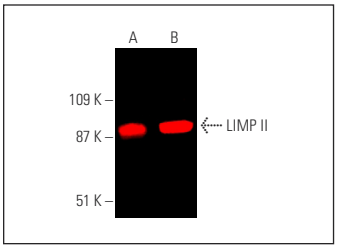
Molecular Weight of LIMP II: 72 kDa.

Positive Controls: U266 whole cell lysate: sc-364800, NCI-H292 whole cell lysate: sc-364179 or Y79 cell lysate: sc-2240.

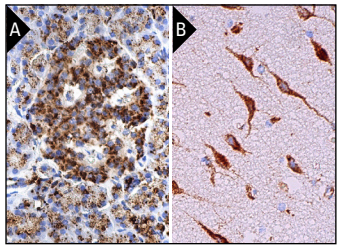
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



LIMP II (D-3): sc-55570. Near-infrared western blot analysis of LIMP II expression in NCI-H292 (**A**) and U266 (**B**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.



LIMP II (D-3): sc-55570. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing granular cytoplasmic staining of Islets of Langerhans and glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing granular cytoplasmic staining of neuronal cells, glial cells and endothelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Fu, Y.J., et al. 2014. Progressive myoclonus epilepsy: extraneuronal brown pigment deposition and system neurodegeneration in the brains of Japanese patients with novel SCARB2 mutations. Neuropathol. Appl. Neurobiol. 40: 551-563.
2. Song, S.B., et al. 2020. High levels of ROS impair lysosomal acidity and autophagy flux in glucose-deprived fibroblasts by activating ATM and Erk pathways. Biomolecules 10: E761.

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.