

LAMP-5 (E-8): sc-398190

BACKGROUND

Lysosome-associated membrane proteins (LAMP) are glycosylated type I membrane proteins that play a role in the biogenesis of the pigment melanin. LAMP-5, also known as C20orf103, is a 280 amino acid protein that belongs to the LAMP family and is mainly found in cytoplasmic vesicles of the neuronal cell body. LAMP-5 is up-regulated upon CpG activation and down-regulated upon Toll-like receptor (TLR) ligands.

REFERENCES

- Febbraio, M., et al. 1990. Identification and characterization of LAMP-1 as an activation-dependent platelet surface glycoprotein. *J. Biol. Chem.* 265: 18531-18537.
- Salopek, T.G., et al. 1996. Induction of melanogenesis during the various melanoma growth phases and the role of tyrosinase, lysosome-associated membrane proteins, and p90 calnexin in the melanogenesis cascade. *J. Investig. Dermatol. Symp. Proc.* 1: 195-202.
- Yang, K., et al. 2009. Immune responses to T-cell epitopes of SARS CoV-N protein are enhanced by N immunization with a chimera of lysosome-associated membrane protein. *Gene Ther.* 16: 1353-1362.
- Defays, A., et al. 2011. BAD-LAMP is a novel biomarker of nonactivated human plasmacytoid dendritic cells. *Blood* 118: 609-617.
- Wilke, S., et al. 2012. Crystal structure of the conserved domain of the DC lysosomal associated membrane protein: implications for the lysosomal glycolyx. *BMC Biol.* 10: 62.

CHROMOSOMAL LOCATION

Genetic locus: LAMP5 (human) mapping to 20p12.2; Lamp5 (mouse) mapping to 2 F3.

SOURCE

LAMP-5 (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 173-196 within an extracellular domain of LAMP-5 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398190 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

LAMP-5 (E-8) is recommended for detection of LAMP-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

LAMP-5 (E-8) is also recommended for detection of LAMP-5 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for LAMP-5 siRNA (h): sc-72692, LAMP-5 siRNA (m): sc-141851, LAMP-5 shRNA Plasmid (h): sc-72692-SH, LAMP-5 shRNA Plasmid (m): sc-141851-SH, LAMP-5 shRNA (h) Lentiviral Particles: sc-72692-V and LAMP-5 shRNA (m) Lentiviral Particles: sc-141851-V.

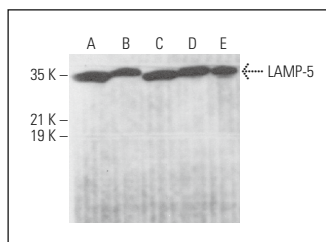
Molecular Weight of LAMP-5 isoforms: 27/31 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, U-251-MG whole cell lysate: sc-364176 or IMR-32 cell lysate: sc-2409.

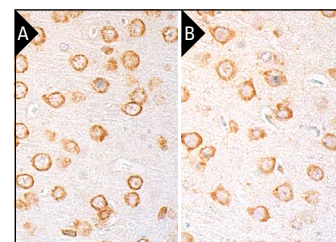
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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 Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



LAMP-5 (E-8): sc-398190. Western blot analysis of LAMP-5 expression in U-251-MG (A), IMR-32 (B), SH-SY5Y (C), EOC 20 (D) and C6 (E) whole cell lysates.



LAMP-5 (E-8): sc-398190. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse brain (A) and rat brain (B) tissue showing membrane and cytoplasmic staining of neuronal cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

RESEARCH USE

For research use only, not for use in diagnostic procedures.