Recombinant Protein Technical Manual

Recombinant Rat LAMP1/CD107a Protein (Fc Tag)

RPES0272

Product Data:

Product SKU: RPES0272

Size: 50µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: P14562

Protein Information:

Molecular Mass: 65.1 kDa

AP Molecular Mass: 123 kDa

Tag: C-Fc

Bio-activity:

Purity: > 92 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: LAMP1

Immunogen Information:

Sequence: Met1-Asn371

Background:

Lysosome-associated membrane glycoprotein 1, also known as CD107 antigen-like family member A, CD107a, and LAMP1, is a single-pass type I membrane protein which belongs to the LAMP family. CD107a is expressed largely in the endosome-lysosome membranes of cells, but is also found on the plasma membrane (1-2% of total LAMP1). LAMP1 has been implicated in a variety of cellular functions, including cancer metastasis. It has been proposed LAMP1 serves as a therapeutic agent for some cancers, as well as a marker for lysosomal storage disorders and different cell types such as cytotoxic T cells. LAMP2, also known as CD107b, may also play a role in tumor cell metastasis and functions in the protection, maintenance, and adhesion of the lysosome. Cell surface LAMP1 and LAMP2 have been shown to promote adhesion of human peripheral blood mononuclear cells (PBMC) to vascular endothelium, therefore they are possibly involved in the adhesion of PBMCs to the site of inflammation. LAMP is a glycoprotein highly expressed in lysosomal membranes. The present study was initiated to test LAMP mRNA and protein levels in post mortem frontal cortex (area 8) of Alzheimer's disease (AD) stages I-IIA/B and stages V-VIC of Braak and Braak, compared with age-matched controls. LAMP occurred in microglia and multinucleated giant cells in one AD case in whom amyloid burden was cleared following betaA-peptide immunization. In addition, LAMP has been suggested to be a cell surface receptor for a specific amelogenin isoform, leucine-rich amelogenin peptide or LRAP. LAMP can serve as a cell surface binding site for amelogenin on dental follicle cells and cementoblasts.