Recombinant Protein Technical Manual

Recombinant Mouse Legumain/LGMN Protein (His Tag)(Active)

RPES2037

Product Data:

Product SKU: RPES2037

Size: 10µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_035305.1

Protein Information:

Molecular Mass:	49.8 kDa
AP Molecular Mass:	55 kDa
Tag:	C-His
Bio-activity:	Measured by its ability to cleave the fluorogenic peptide substrate, N-carbobenzyloxy-Ala-Ala-Asn-7-amido-4-methyl coumarin(Z-AAN-AMC). The specific activity is > 350 pmoles/min/µg. (Activation description: The enzyme achieves its activity under acidic pH)
Purity:	> 75 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage:	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile 25mM Tris, 0.15M NaCl, 20% Glycerol, pH 7.5
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	Legumain;Lgmn;Asparaginyl endopeptidase;Protease cysteine 1;Prsc1;AEP

Immunogen Information:

Sequence: Val 18-Tyr 435

Background:

The Mammalian Legumain, also known as LGMN, also called asparaginyl endopeptidase (AEP), is a cysteine protease belonging to peptidase family C13 with a strict specificity for hydrolysis of asparaginyl bonds. Known previously only from plants and invertebrates, Legumain is discovered as a lysosomal endopeptidase in mammals. Mammalian Legumain is a cysteine endopeptidase, inhibited by iodoacetamide and maleimides, but unaffected by compound E64. The Mammalian Legumain is involved in the processing of bacterial peptides and endogenous proteins for MHC class II presentation in the lysosomal/endosomal systems. Legumain has been observed to be highly expressed in several types of solid tumors. It was demonstrated in membrane-associated vesicles concentrated at the invadopodia of tumor cells and on cell surfaces where it colocalized with integrins. Legumain was demonstrated to activate progelatinase A. Cells overexpressing Legumain possessed increased migratory and invasive activity in vitro and adopted an invasive and metastatic phenotype in vivo, inferring significance of Legumain in tumor invasion and metastasis. In addition, Legumain is expressed in both murine and human atherosclerotic lesions. The macrophage-specific expression of Legumain in vivo and ability of Legumain to induce chemotaxis of monocytes and endothelial cells in vitro suggest that Legumain may play a functional role in atherogenesis.