

Recombinant Protein Technical Manual Recombinant Mouse Cathepsin A/CTSA Protein (His Tag) RPES2703

Product Data:

Product SKU: RPES2703

Size: 20µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: P16675

Protein	Intormation	
Inotem		

Molecular Mass:	52.8 kDa
AP Molecular Mass:	52.8 kDa
Tag:	C-His
Bio-activity:	
Purity:	> 96 % 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°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile 25mM Tris, 0.3M NaCl, pH 8.0
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	AU019505;PPCA;Ppgb

Sequence: Met 1-Tyr 474

Background:

Lysosomal carboxypeptidase, cathepsin A (protective protein, CathA), is a component of the lysosomal multienzyme complex along with beta-galactosidase (GAL) and sialidase Neu1, where it activates Neu1 and protects GAL and Neu1 against the rapid proteolytic degradation. Cathepsin A is a multicatalytic enzyme with deamidase and esterase in addition to carboxypeptidase activities. It was recently identified in human platelets as deamidase. In vitro, it hydrolyzes a variety of bioactive peptide hormones including tachykinins, suggesting that extralysosomal cathepsin A plays a role in regulation of bioactive peptide functions. It is a member of the alpha/beta hydrolase fold family and has been suggested to share a common ancestral relationship with other alpha/beta hydrolase fold enzymes, such as cholinesterases. Cathepsin A defects are linked to multiple forms of Galactosialidosis with a combined secondary deficiency of beta-galactosidase and neuraminidase. Cathepsin A is a key molecule in the onset of galactosialidosis and also highlight the therapeutic acts in vivo as an endothelin-inactivating enzyme and strongly confirm a crucial role of this enzyme in effective elastic fiber formation.