Recombinant Mouse Entpd1, His-tagged

Cat. No. ENTPD1-188M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse Entpd1 (Thr 38-Ile 478) was expressed in Baculovirus- Insect cells and fused with a polyhistidine tag at the C- terminus and a signal peptide at the N-terminus.
Species	Mouse
Source	Insect Cells
ProteinLength	38-478 a.a.
Description	CD39, also known as ENTPD1, is a member of the GDA1/CD39 NTPase family. CD39 is weakly expressed on granulocytes while expressed highly on activated lymphoid cells. Human CD39 is found on most mature B cells, activated NK cells and activated T cells. In the nervous system, CD39 could hydrolyze ATP and other nucleotides to regulate purinergic neurotransmission. It could also be implicated in the prevention of platelet aggregation and hydrolyzes ATP and ADP equally well. By hydrolyzing ATP and ADP, CD39 regulates vascular inflammation and thrombosis. It is the dominant ecto nucleotidase of vascular and placental trophoblastic tissues and appears to modulate the functional expression of type 2 purinergic (P2) G protein coupled receptors (GPCRs). CD39 transgenic mice exhibit impaired platelet aggregation, prolonged bleeding times, and resistance to systemic thromboembolism.
Molecular Mass	The secreted recombinant mouse ENTPD1 consists of 451 amino acids and has a calculated molecular mass of 51 kDa. The recombinant protein migrates as an

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	approximately 105 kDa band in SDS-PAGE under reducing conditions
Formulation	Lyophilized from 0.2μm filtered solution of 20mM Tris,500mM NaCl, pH7.4,10% gly. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization.
Bio- activity	Measured by its ability to hydrolyze the 5'phosphategroups from the substrate adenosine 5'triphosphate(ATP). The specific activity is > 25,000 pmoles/min/μg.
Endotoxin	<1.0 EU per μg protein as determined by the LAL method.
Purity	> 97 % as determined by SDS-PAGE
Predicted Nterminal	Thr 38
Stability	Samples are stable for up to twelve months from date of receipt at -70°C
Storage	Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.
OfficialSymbol	Entpd1

GENE INFORMATION

Gene Name	Entpd1 ectonucleoside triphosphate diphosphohydrolase 1 [Mus musculus]
Synonyms	Entpd1; ectonucleoside triphosphate diphosphohydrolase 1; Cd39; AA408691; NTPDase-1; 2610206B08Rik; NTPDase 1; ectoapyrase; CD39 antigen; ecto-apyrase; ecto-ATPase 1; ecto-ATPDase 1; ecto-ATP diphosphohydrolase 1; lymphoid cell activation antigen

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Gene ID	12495
mRNA Refseq	NM_009848
Protein Refseq	NP_033978
UniProt ID	P55772
Chromosome Location	19 C3; 19 35.5 cM
Pathway	Epstein-Barr virus infection; Purine metabolism; Pyrimidine metabolism
Function	ATP binding; hydrolase activity; nucleoside-diphosphatase activity; nucleotide binding

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