

Recombinant Mouse CD39/ENTPD1 Protein (His Tag)

Catalog Number: PKSM040702

Note: Centrifuge before opening to ensure complete recovery of vial contents.

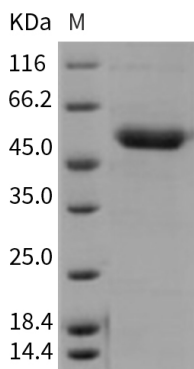
Description

Species	Mouse
Source	Baculovirus-Insect Cells-derived Mouse CD39/ENTPD1 protein Thr 38-Ile 478, with an C-terminal His
Calculated MW	51.0 kDa
Accession	P55772
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.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, 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 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

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CD39, also known as ENTPD1, belongs to the GDA1/CD39 NTPase family. It is expressed primarily on activated lymphoid cells and can also be detected in endothelial tissues. The vascular isoform and the placental isoform II are present in both placenta and umbilical vein, whereas placental isoform I is present in placenta only. CD39 can hydrolyze both nucleoside triphosphates and diphosphates. 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. There is a correlation between ATP hydrolysis and triglycerides in patients with chronic heart disease, suggesting a relationship between ATP diphosphohydrolase and thrombogenesis. In the nervous system, CD39 could hydrolyze ATP and other nucleotides to regulate purinergic neurotransmission.

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