Recombinant Mouse 5'-Nucleotidase/NT5E/CD73 Protein

Catalog No.: RP01447

Sequence Information

Species
Mouse

Gene ID
23959

Swiss Prot
Q61503

Tags
C-His

Synonyms
CD73,NT5E,NT,Nt5,eNT,5'-NT, AI447961,CD73

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
58.90 kDa

Observed MW
55-70 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

5'-nucleotidase, also known as NT5E, NTE, and CD73, is a cell membrane protein that belongs to the 5'-nucleotidase family. CD73 is a glycosylphosphatidylinositol (GPI) anchored purine salvage enzyme expressed on the surface of human T and B lymphocytes. CD73 catalyzes the conversion of purine and pyrimidine ribo- and deoxyribonucleoside monophosphates to the corresponding nucleosides. CD73 serves as a costimulatory molecule in activating T cells. CD73 generated adenosine functions in cell signaling in many physiologic systems, including intestinal epithelium, ischemic myocardium, and cholinergic synapses. CD73 might mediate lymphocyte-stromal cell interactions or condition the local microenvironment to facilitate lymphocyte development and/or function. In CD73-depleted cells, surface levels of the leukocyte adhesion molecules ICAM-1, VCAM-1, and E-selectin increase. CD73 produces extracellular adenosine, which then acts on G protein-coupled purinergic receptors to induce cellular responses. CD73 has also been reported to regulate the expression of pro-inflammatory molecules in mouse endothelium.

Basic Information

Description
Recombinant Mouse 5'-Nucleotidase/NT5E/CD73 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Trp29-Ser551) of mouse CD73/NT5E (Accession #NP_035981.1) fused with a 6×His tag at the C-terminus.

Activity
Measured by its ability to hydrolyze the 5'-phosphate group from the substrate adenosine-5'-monophosphate (AMP). The orthophosphate product is measured by a Malachite Green Phosphate Detection Kit. The specific activity is >24790 pmol/min/μg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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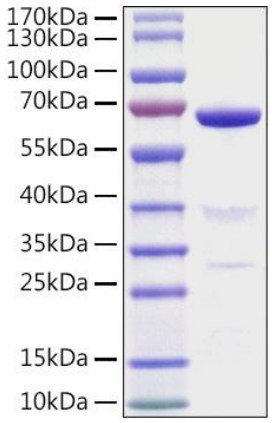
Validation Data



Recombinant Mouse 5'-Nucleotidase/NT5E/CD73 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.