

Recombinant Mouse 5'-Nucleotidase/NT5E/CD73 Protein

Catalog No.: RP01447 Recombinant 1 Publications

Sequence Information

Species Gene ID Swiss Prot Mouse 23959 Q61503

Tags C-His

Synonyms

CD73;NT5E;NT;Nt5;eNT;5'-NT;AI447961;CD73

Product Information

Source Purification

HEK293 cells ≥ 95 % as determined by SDS-

PAGE

Calculated MW Observed MW

58.90 kDa 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.

Contact

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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 $6\times$ His tag at the C-terminus.

Bio-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

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

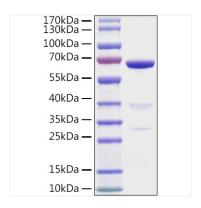
After reconstitution, the protein solution is stable at -20 $^{\circ}$ C for 3 months, at 2-8 $^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Operational Notes

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

Validation Data



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