

Recombinant Mouse 5'-Nucleotidase/NT5E/CD73 Protein

Catalog No.: RP01447 Recombinant 2 Publications

Sequence Information

Species **Gene ID** **Swiss Prot**
 Mouse 23959 Q61503

Tags
 C-His

Synonyms

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

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.

Product Information

Source **Purification**
 HEK293 cells $\geq 95\%$ as
 determined by SDS-PAGE.

Calculated MW **Observed MW**
 58.90 kDa 55-70 kDa

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

Formulation
 Lyophilized from a 0.22 μ m 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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

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/ μ g.

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°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

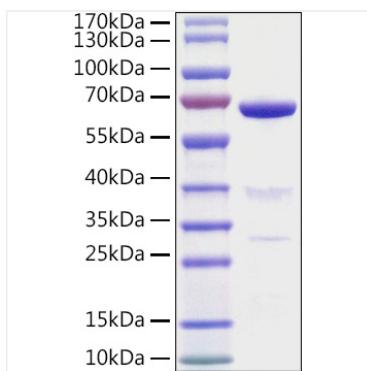
Operational Notes

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

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.