Human CD73 / NT5E Protein (His Tag)

Catalog Number: 10904-H08H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CALJA; CD73; E5NT; eN; eNT; NT; NT5; NTE

Protein Construction:

A DNA sequence encoding the human NT5E (NP_002517.1) (Met1-Lys547) was expressed fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE. > 95 % as determined by SEC-HPLC.

Bio Activity:

1. Using the Octet RED System, the affinity constant (Kd) of CD73 Protein, Human, Recombinant (His Tag) (Cat. 10904-H08H) bound MEDI9447 was 0.3 nM. 2. Measured by its ability to hydrolyze the 5'phosphate group from the substrate adenosine 5'monophosphate (AMP). The specific activity is > 15,000 pmoles/min/μg.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Predicted N terminal: Trp 27

Molecular Mass:

The secreted recombinant human NT5E consists of 532 amino acids with the predicted molecular mass of 59.2 kDa.

Formulation:

Lyophilized from sterile 20mM Tris, 120 mM NaCl, 4 mM CaCl2, 20 % glycerol, pH 7.5.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

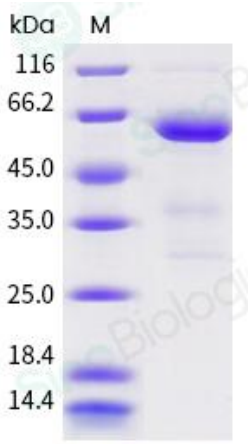
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.Resta R. et al., 1997, Cell Signal. 9 (2): 131-9. 2.Yamashita Y. et al., 1998, Eur J Immunol. 28 (10): 2981-90. 3.Louis NA. et al., 2008, J Immunol. 180 (6): 4246-55.