

# 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) (Met 1-Lys 547) without the propeptide 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

### Bio Activity:

**Measured by its ability to hydrolyze the 5'phosphate group from the substrate adenosine 5'monophosphate (AMP). The specific activity is > 20,000 pmoles/min/μg.**

### Endotoxin:

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

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**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 CaCl<sub>2</sub>, 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

### Storage:

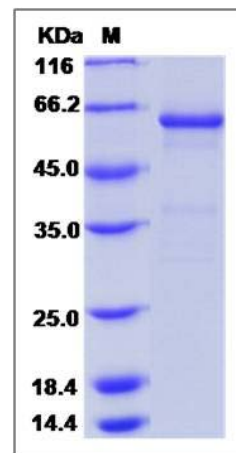
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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 which belongs to the 5'-nucleotidase family. CD73 is a glycosyl phosphatidylinositol (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 signalling 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 purigenic receptors to induce cellular responses. CD73 has also been reported to regulate 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.

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