

Human NTPDase 2 / ENTPD2 Protein (aa 29-460, His Tag)

Catalog Number: 11734-H07B1



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CD39L1; NTPDase-2; Cd39l1; NTPDase2

Protein Construction:

A DNA sequence encoding the mature form of human ENTPD2 (Q9Y5L3) (Thr29-Asp460) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to hydrolyze the 5'phosphate groups from the substrate adenosine 5'triphosphate(ATP). The specific activity is > 5,000 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: His

Molecular Mass:

The recombinant human human ENTPD2 consists of 448 amino acids and predicts a molecular mass of 49.3 KDa. It migrates as an approximately 59 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4

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:

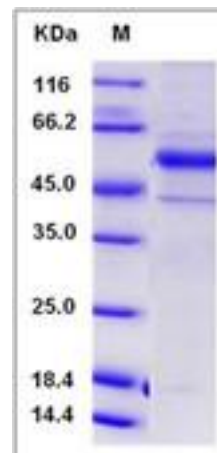
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

NTPDase 2, also known as ENTPD2, belongs to the ecto-nucleoside triphosphate diphosphohydrolase family (E-NTPDase). Members of E-NTPDase family are nucleotidases able to hydrolyze 5'-nucleoside tri- and/or diphosphates; the main role of these enzymes is the termination of purinergic signaling. NTPDases are ubiquitous and were previously shown in other parasites including the trypanosomatides of genus *Leishmania* and in *T. brucei*. NTPase activity would act as a timer and is crucial to *T. gondii* infection. In *L. pneumophila* it was demonstrated that an E-NTPDase, similar to CD39, is essential for intracellular bacterial multiplication. NTPDase 2 is an integral membrane protein. In the nervous system, it could hydrolyze ATP and other nucleotides to regulate purinergic neurotransmission. Alternative splicing of NTPDase 2 gene results in multiple transcript variants.

References

- 1.Harden TK, *et al.* (2005) Regulation of P2Y1 receptor-mediated signaling by the ectonucleoside triphosphate diphosphohydrolase isozymes NTPDase1 and NTPDase2. *Mol Pharmacol.* 67(1): 114-22.
- 2.Dranoff JA, *et al.* (2005) Ectonucleotidase NTPDase2 is selectively down-regulated in biliary cirrhosis. *J Investig Med.* 52(7):475-82.
- 3.Jhandier MN, *et al.* (2005) Portal fibroblasts regulate the proliferation of bile duct epithelia via expression of NTPDase2. *J Biol Chem.* 280(24):22986-92.

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