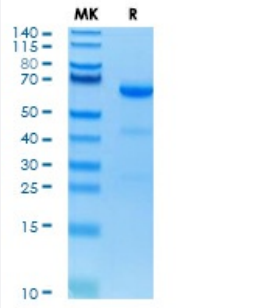
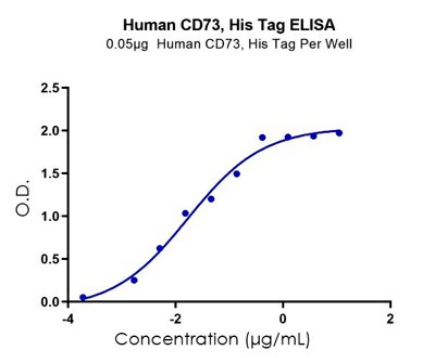
Bioactive HuPro®

NT5E (Human) Recombinant Protein

Catalog # P7646 Size 1 mg

Applications





Result of bioactivity analysis

Result of bioactivity analysis

Specification

Product Description	Human NT5E (P21589, 27 a.a. - 547 a.a.) partial recombinant protein with His tag at C-terminus expressed in Expi293 cells.
Sequence	WELTILHTNDVHSRLEQTSEDSSKCVNASRCMGGVARLFTKVQQIRRAEPNVLLLDAGDQYQGTI WFTVYKGAEVAHFMNALRYDAMALGNHEFDNGVEGLIEPLLKEAKFPILSANIKAKGPLASQISGL YLPYKVLPVGDEVVGIVGYTSKETPFLSNPGTNLVFEDEITALQPEVDKLKTLNVNKIIALGHSGFE MDKLIAQKVRGVDVVVGGHSNTFLYTGNPPSKEVPAGKYPFIVTSDDGRKVPVVQAYAFGKYLGY LKIEFDERGNVISSHGNPILLNSSIPEDPSIKADINKWRIKLDNYSTQELGKTIVYLDGSSQSCRFREC NMGNLICDAMINNNLRHTDEMFWNHVSMCILNGGGIRSPIDERNNGTITWENLAAVLPFGGTFDLV QLKGSTLKKAFEHSVHRYGQSTGEFLQVGGIHVVYDLSRKPGDRVVKLDVLCTKCRVPSYDPLK MDEVYKVILPNFLANGGDGFQMIKDELLRHDSGDQDINVVSTYISKMKVIYPAVEGRIK
Host	Mammals

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Theoretical MW (kDa)	58.8
Form	Liquid
Preparation Method	Mammalian cell (Expi293) expression system
Purity	> 95% by SDS-PAGE
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Activity	Immobilized Human CD73, His at 0.5 ug/mL (100 uL/Well). Dose response curve for Anti-CD73 Ab with the EC_{50} of 19.3 ng/mL determined by ELISA.
Quality Control Testing	SDS-PAGE under reducing condition
Storage Buffer	In 20 mM Tris, 120 mM NaCl, pH 7.5 (20% glycerol, 4 mM $CaCl_2$).
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis Result of bioactivity analysis

Applications

- Functional Study
- SDS-PAGE

Gene Info — NT5E

Entrez GeneID	4907
Protein Accession#	P21589
Gene Name	NT5E
Gene Alias	CD73, E5NT, NT, NT5, NTE, eN, eNT
Gene Description	5'-nucleotidase, ecto (CD73)
Omim ID	129190
Gene Ontology	Hyperlink

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Gene Summary	Ecto-5-prime-nucleotidase (5-prime-ribonucleotide phosphohydrolase; EC 3.1.3.5) catalyzes the conversion at neutral pH of purine 5-prime mononucleotides to nucleosides, the preferred substrate being AMP. The enzyme consists of a dimer of 2 identical 70-kD subunits bound by a glycosyl phosphatidyl inositol linkage to the external face of the plasma membrane. The enzyme is used as a marker of lymphocyte differentiation. Consequently, a deficiency of NT5 occurs in a variety of immunodeficiency diseases (e.g., see MIM 102700, MIM 300300). Other forms of 5-prime nucleotidase exist in the cytoplasm and lysosomes and can be distinguished from ecto-NT5 by their substrate affinities, requirement for divalent magnesium ion, activation by ATP, and inhibition by inorganic phosphate.[supplied by OMIM
Other Designations	5' nucleotidase (CD73)|5' nucleotidase, ecto|OTTHUMP00000016808|OTTHUMP00000040565|Purine 5-Prime-Nucleotidase|ecto-5'-nucleotidase

Pathway

- Biosynthesis of alkaloids derived from histidine and purine
- Metabolic pathways
- Nicotinate and nicotinamide metabolism
- Purine metabolism
- Pyrimidine metabolism

Disease

- Ataxia telangiectasia
- Colorectal Neoplasms
- Depressive Disorder
- Fatigue
- Genetic Predisposition to Disease
- Ovarian Neoplasms
- Sleep Disorders
- Sleep Initiation and Maintenance Disorders

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