Recombinant 5NTC protein (His tag)

Catalog Number	547033
Synonyms	Cytosolic 5'-nucleotidase II; cN-II; Cytosolic IMP/GMP-specific 5'-nucleotidase; Cytosolic nucleoside phosphotransferase 5'N; High Km 5'-nucleotidase
Species	Human
Expression System	E. coli
Accession	P49902
Molecular Weight	Predictes a molecular mass of 58.60 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 59 kDa band.

Product Information

Sequence Region	1-493
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-493 aa (P49902) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Cytosolic Purine 5'-Nucleotidase (cN-II), corresponding to amino acids 1-493, is a high-purity protein fragment optimized for stability and solubility. This construct retains the enzyme's critical catalytic activity, enabling robust investigation of purine nucleotide metabolism and nucleoside phosphate transfer mechanisms in biochemical and structural studies. Cytosolic purine 5'-nucleotidase (cN-II), encoded by the NT5C2 gene, is a broad-specificity enzyme that dephosphorylates 6-hydroxypurine nucleoside 5'-monophosphates, with highest activity toward IMP and GMP. It also exhibits phosphotransferase capability, transferring phosphate groups between nucleoside monophosphates—preferentially involving inosine, deoxyinosine, and guanosine. These functions allow cN-II to regulate intracellular purine nucleoside and nucleotide pools, influencing key metabolic and signaling pathways. The protein is localized to the cytoplasm and cytosol, where it performs these essential roles in nucleotide homeostasis.