Recombinant 5NT1A protein (His tag)

Catalog Number	545851
Synonyms	cN1A; 5'-deoxynucleotidase; Cytosolic 5'-nucleotidase IA; cN-I; cN-IA
Species	Human
Expression System	E. coli
Accession	Q9BXI3
Molecular Weight	Predictes a molecular mass of 42.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	1-368
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-368 aa (Q9BXI3) 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 5'-nucleotidase 1A (cN1A) fragment (amino acids 1-368) is a high-purity protein designed for structural and biochemical studies. This fragment encompasses the full-length protein's functional domain, optimized for stability and solubility, enabling reliable investigation of nucleotide metabolism and enzyme kinetics. Cytosolic 5'-nucleotidase 1A (cN1A), encoded by the NT5C1A gene, is a key enzyme in nucleotide metabolism. It catalyzes the hydrolysis of ribonucleotide and deoxyribonucleotide monophosphates—with AMP as the primary substrate—alongside dCMP and IMP, producing inorganic phosphate and corresponding nucleosides. This activity regulates intracellular nucleotide pools and supports nucleoside salvage pathways. The enzyme is localized in the cytoplasm, where it contributes to maintaining nucleotide balance critical for cellular functions. Its role in hydrolyzing diverse monophosphates underscores its importance in metabolic homeostasis and potential relevance in pathological conditions involving nucleotide dysregulation.