Recombinant 5NT3B protein (His tag)

Catalog Number	540935
Synonyms	7-methylguanosine nucleotidase; Cytosolic 5'-nucleotidase 3B; Cytosolic 5'-nucleotidase III-like protein; cN-III-like protein; N(7)-methylguanylate 5'-phosphatase
Species	Human
Expression System	E. coli
Accession	Q969T7
Molecular Weight	Predictes a molecular mass of 36.05 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	1-300
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 1-300 aa (Q969T7) 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 NT5C3B Protein Fragment (1-300) - A high-quality recombinant protein fragment representing the cytosolic 5'-nucleotidase 3B (7-methylguanosine nucleotidase), specifically engineered for structural and biochemical studies. This 300-amino acid fragment maintains key functional domains and exhibits excellent solubility, making it ideal for investigating nucleotide metabolism and m7GMP hydrolysis mechanisms. The full-length NT5C3B protein, also known as cytosolic 5'-nucleotidase 3B or 7-methylguanosine nucleotidase, is a human enzyme that specifically hydrolyzes 7-methylguanosine monophosphate (m7GMP) to 7-methylguanosine and inorganic phosphate. This enzymatic activity plays a crucial protective role in cells by preventing the undesired salvage of m7GMP and its potential incorporation into nucleic acids. The protein also demonstrates weak activity toward CMP, while showing minimal activity with UMP and purine nucleotides. NT5C3B is localized exclusively in the cytoplasm, where it functions in nucleotide metabolism and quality control pathways. The specific m7GMP hydrolysis activity makes this enzyme particularly important for understanding cellular mechanisms that maintain nucleic acid integrity and prevent aberrant nucleotide incorporation.