Recombinant NT5C protein (His tag)

Catalog Number	540825
Synonyms	3'; Cytosolic 5',3'-pyrimidine nucleotidase; Deoxy-5'-nucleotidase 1; dNT-1
Species	Human
Expression System	E. coli
Accession	Q8TCD5
Molecular Weight	Predictes a molecular mass of 25.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	1-201
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-201 aa (Q8TCD5) 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 5'(3')-deoxyribonucleotidase (NT5C) Fragment (1-201) is a high-quality, soluble protein designed for structural and biochemical studies. This fragment, derived from the cytosolic type deoxyribonucleotidase, retains key functional regions and is optimized for stability, making it ideal for investigating nucleotide metabolism and enzyme mechanisms. The full-length 5'(3')-deoxyribonucleotidase, encoded by the NT5C gene, is a cytosolic enzyme that dephosphorylates the 5' and 2'(3')-phosphates of deoxyribonucleotides. It exhibits substrate specificity, with high activity towards dUMP and dTMP, intermediate activity towards dGMP, and lower activity towards dCMP and dAMP. This enzyme plays a critical role in nucleotide salvage pathways by regulating deoxyribonucleotide pools, which is essential for DNA repair and synthesis. Its localization in the cytoplasm underscores its involvement in maintaining nucleotide balance within the cell, highlighting its significance in cellular metabolism and potential implications in disease research.