Recombinant NT5D2 protein (His tag)

Catalog Number	548849
Species	Human
Expression System	E. coli
Accession	Q9H857
Molecular Weight	Predictes a molecular mass of 57.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 58 kDa band.

Product Information

Sequence Region	51-520
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 51-520 aa (Q9H857) 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	This recombinant protein product features a stable and soluble fragment (amino acids 51-520) of the human 5'-nucleotidase domain-containing protein 2 (NT5DC2). Designed for structural and biochemical studies, this fragment supports research into the protein's role in regulating catecholamine synthesis through dephosphorylation mechanisms. The full-length 5'-nucleotidase domain-containing protein 2, encoded by the NT5DC2 gene, promotes dephosphorylation of tyrosine 3-monooxygenase (TH), reducing its catalytic activity and leading to decreased synthesis of catecholamines such as dopamine, noradrenaline, and adrenaline. Although the precise mechanism remains unclear, it may function as a phosphatase, enhance phosphatase activity, or inhibit phosphorylation by obstructing protein kinase access. This protein is localized in the cytoplasm, where it contributes to the regulation of neurotransmitter production, highlighting its significance in neurological and physiological processes.