Recombinant COMT protein (His tag)

Catalog Number	546840
Species	Human
Expression System	E. coli
Accession	P21964
Molecular Weight	Predictes a molecular mass of 29.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	27-271
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 27-271 aa (P21964) 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 Catechol O-methyltransferase (COMT) Fragment (aa 27-271) - A highly stable and soluble protein fragment ideal for structural studies and biochemical characterization of this crucial neurotransmitter-regulating enzyme. Catechol O-methyltransferase (COMT) is a key enzyme that catalyzes the O-methylation and subsequent inactivation of catecholamine neurotransmitters and catechol hormones. This enzyme plays a vital role in regulating neurotransmitter levels and also contributes to the metabolic clearance of various neuroactive drugs including L-DOPA, alpha-methyl DOPA, and isoproterenol. The full-length protein exists in two distinct isoforms with different subcellular localizations: a soluble isoform found in the cytoplasm and a membrane-bound isoform that functions as a single-pass type II membrane protein localized to the cell membrane with extracellular orientation. The recombinant fragment provided (amino acids 27-271) represents a computationally optimized stable domain suitable for research applications.