Recombinant TOMT protein (His tag)

Catalog Number	545579
Synonyms	Catechol O-methyltransferase 2; Protein LRTOMT2
Species	Human
Expression System	E. coli
Accession	Q8WZ04
Molecular Weight	Predictes a molecular mass of 28.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	52-291
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 52-291 aa (Q8WZ04) 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 product is a recombinant fragment of human Transmembrane O-methyltransferase (TOMT), encompassing residues 52-291. It represents a stable and soluble unit ideal for structural studies, biochemical assays, and functional investigations into catecholamine metabolism and auditory mechanotransduction pathways. Transmembrane O-methyltransferase (EC 2.1.1.6), also known as Catechol O-methyltransferase 2 or Protein LRTOMT2, is encoded by the TOMT gene in humans. It catalyzes the O-methylation and inactivation of catecholamine neurotransmitters and hormones. Beyond its enzymatic role, it is essential for auditory function, serving as a component of the cochlear hair cell's mechanotransduction machinery. It facilitates the assembly of the tip-link complex and is required for the transport of TMC1 and TMC2 proteins into stereocilia, with this function being independent of its methyltransferase activity. Subcellular localization varies by isoform: Isoform 1 is a single-pass membrane protein, while Isoform 2 is found in the cytoplasm and endoplasmic reticulum, localizing to the cell body of cochlear hair cells but not the stereocilia.