Recombinant ACHB3 protein (His tag)

Catalog Number	544849
Species	Human
Expression System	E. coli
Accession	Q05901
Molecular Weight	Predictes a molecular mass of 26.87 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	22-237
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 22-237 aa (Q05901) 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 Neuronal Acetylcholine Receptor Subunit Beta-3 (CHRNB3) Fragment (aa 22-237) – a high-quality human protein fragment engineered for stability and solubility, ideal for investigating nicotinic receptor assembly, calcium permeability, and nicotine addiction mechanisms in neurological research. The full-length Neuronal Acetylcholine Receptor Subunit Beta-3 (CHRNB3) is a critical component of pentameric, ligand-gated cation channels in the nervous system, contributing to synaptic transmission with high calcium permeability. It functions as an accessory subunit, requiring co-assembly with other beta subunits (such as CHRNB2 or CHRNB4) and alpha subunits (including CHRNA3, CHRNA4, or CHRNA6) to form functional nicotinic acetylcholine receptors (nAChRs). This protein modulates receptor sensitivity to nicotine, influences activation and desensitization kinetics, and is implicated in nicotine addiction pathways. It localizes to the synaptic and cell membranes as a multi-pass membrane protein, playing a role in neurotransmitter signaling and receptor dynamics, as supported by studies in neuronal systems.