Recombinant ACHB2 protein (His tag)

Catalog Number	537580
Species	Human
Expression System	E. coli
Accession	P17787
Molecular Weight	Predictes a molecular mass of 26.76 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	26-238
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 26-238 aa (P17787) 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-2 (CHRNB2) Fragment (residues 26-238) from Homo sapiens. This high-purity, soluble protein fragment is engineered for structural and biochemical studies, offering a stable and functional unit ideal for investigating ligand-gated ion channel mechanisms and neuropharmacology applications. The full-length Neuronal Acetylcholine Receptor Subunit Beta-2 (CHRNB2) is a critical component of pentameric, ligand-gated cation channels in the nervous system, known for their high calcium permeability and role in excitatory synaptic transmission. It forms heteropentameric receptors with various alpha subunits (e.g., CHRNA2, CHRNA4, CHRNA6), influencing channel properties such as activation kinetics, acetylcholine sensitivity, and calcium permeability. These receptors are predominantly expressed in dopaminergic, norepinephrine, and visual system neurons, mediating cholinergic modulation of neurotransmitter release, including dopamine and GABA. CHRNB2-containing nAChRs are also found in basal forebrain cholinergic neurons. The protein localizes to the synaptic and cell membranes as a multi-pass membrane protein, underscoring its importance in neuronal signaling and potential as a target for neurological research.