Recombinant ACHA5 protein (His tag)

Catalog Number	542259
Species	Human
Expression System	E. coli
Accession	P30532
Molecular Weight	Predictes a molecular mass of 26.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	41-254
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 41-254 aa (P30532) 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 Neuronal Acetylcholine Receptor Subunit Alpha-5 (CHRNA5) Fragment (aa 41-254) - A high-quality recombinant protein representing a stable and soluble region of the CHRNA5 subunit, ideal for structural studies, biochemical characterization, and research on neuronal acetylcholine receptor function and nicotine addiction mechanisms. The full-length Neuronal Acetylcholine Receptor Subunit Alpha-5 (CHRNA5) is a component of pentameric, ligand-gated cation channels that function as excitatory neurotransmitter receptors in the nervous system. These receptors demonstrate high calcium permeability and mediate synaptic transmission. CHRNA5 plays an accessory rather than functional role, requiring co-assembly with beta subunits to form functional nAChRs. The subunit participates in receptor complexes with CHRNA3, CHRNA4, CHRNB2, and CHRNB4, where it enhances receptor sensitivity to acetylcholine and nicotine when associated with CHRNA4 and CHRNB2. CHRNA5 is localized to synaptic and cell membranes as a multi-pass membrane protein and has been clinically implicated in nicotine addiction. This recombinant fragment represents amino acids 41-254, selected for optimal stability and solubility to facilitate research applications.