Recombinant ACHA protein (His tag)

Catalog Number	541999
Species	Human
Expression System	E. coli
Accession	P02708
Molecular Weight	Predictes a molecular mass of 26.27 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	21-232
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 21-232 aa (P02708) 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 Acetylcholine Receptor Subunit Alpha (CHRNA1) Fragment (aa 21-232) - A high-quality, stable protein fragment designed for structural and biochemical studies of this essential neurotransmitter receptor component. The full-length Acetylcholine Receptor Subunit Alpha (CHRNA1) plays a critical role in neurotransmission by forming ligand-gated ion channels that respond to acetylcholine binding. Upon acetylcholine interaction, the receptor undergoes extensive conformational changes that open ion-conducting channels across the plasma membrane, facilitating signal transmission at postsynaptic membranes. The protein is localized to postsynaptic cell membranes as a multi-pass membrane protein, where it functions as a key component of the nicotinic acetylcholine receptor complex. Isoform 1 is the functional subunit that integrates into cation-selective channels, while isoform 2 represents a non-functional variant that does not participate in functional channel formation. This receptor subunit is essential for proper neuromuscular junction function and neuronal signaling.