Recombinant AGRL3 protein (His tag)

Catalog Number	548273
Synonyms	Calcium-independent alpha-latrotoxin receptor 3; CIRL-3; Latrophilin-3; Lectomedin-3
Species	Human
Expression System	E. coli
Accession	Q9HAR2
Molecular Weight	Predictes a molecular mass of 44.48 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	20-393
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 20-393 aa (Q9HAR2) 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 Adhesion G protein-coupled receptor L3 (ADGRL3) fragment (residues 20-393), encompassing the SUEL-type lectin and Olfactomedin-like domains. This high-purity human protein fragment is an essential tool for investigating synapse specificity mechanisms and G-protein coupled receptor signaling pathways in neurological research. Adhesion G protein-coupled receptor L3 (ADGRL3), also known as Latrophilin-3, is an orphan adhesion GPCR that plays a critical role in mediating synapse specificity in the nervous system. Upon ligand binding, it undergoes conformational changes that activate various G-protein signaling pathways, with strongest coupling to G(12)/G(13) proteins leading to Rho GTPase activation. The receptor localizes to postsynaptic membranes and interacts with presynaptic cell adhesion molecules FLRT3 and TENM2 to direct synapse formation. Specifically, ADGRL3 establishes Schaffer-collateral synapses between CA3 and CA1 pyramidal neurons in the hippocampus and contributes to glutamatergic synapse development in the cortex, making it crucial for determining neuronal connectivity patterns. The full-length protein is a multi-pass membrane protein primarily located at the cell membrane, postsynaptic membranes, axons, and cell junctions.