Recombinant ASTRC protein (His tag)

Catalog Number	549015
Synonyms	GRAM domain-containing protein 1C
Species	Human
Expression System	E. coli
Accession	Q8IYS0
Molecular Weight	Predictes a molecular mass of 17.84 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	65-198
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 65-198 aa (Q8IYS0) 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 Protein Aster-C (GRAMD1C) Fragment (65-198) - A high-purity recombinant protein fragment encompassing the complete GRAM domain (69-136) of human GRAM domain-containing protein 1C. This specialized fragment serves as an essential research tool for investigating cholesterol transport mechanisms and domain-specific functions in cellular lipid homeostasis. Protein Aster-C (GRAMD1C) is a crucial cholesterol transporter that mediates non-vesicular transport of cholesterol from the plasma membrane to the endoplasmic reticulum. The full-length protein functions as a molecular bridge, utilizing unique domains to bind cholesterol and the plasma membrane, thereby facilitating cholesterol transfer between cellular compartments. GRAMD1C plays a vital role in maintaining cholesterol homeostasis through its dynamic subcellular localization - residing in the endoplasmic reticulum membrane under lipid-poor conditions and translocating to endoplasmic reticulum-plasma membrane contact sites in response to excess cholesterol. This recruitment to contact sites is specifically mediated by the GRAM domain, which enables the protein to facilitate cholesterol transfer from the plasma membrane to the endoplasmic reticulum via its sterol-binding VASt/ASTER domain.