Recombinant ASTRA protein (His tag)

Catalog Number	545654
Synonyms	GRAM domain-containing protein 1A
Species	Human
Expression System	E. coli
Accession	Q96CP6
Molecular Weight	Predictes a molecular mass of 21.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	363-538
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 363-538 aa (Q96CP6) 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-A (GRAM domain-containing protein 1A) Fragment (aa 363-538) is a high-purity, functionally relevant protein fragment encompassing the complete VASt/ASTER domain. This product is an essential tool for investigating cholesterol transport mechanisms, autophagy regulation, and lipid homeostasis in cellular systems. Protein Aster-A (GRAMD1A) is a cholesterol transporter in humans that mediates non-vesicular transport of cholesterol from the plasma membrane to the endoplasmic reticulum, playing a critical role in maintaining cholesterol homeostasis. It dynamically localizes to endoplasmic reticulum-plasma membrane contact sites in response to excess PM cholesterol, where its sterol-binding VASt/ASTER domain facilitates cholesterol transfer. Additionally, it contributes to autophagy regulation and autophagosome biogenesis, dependent on its cholesterol-transfer activity, and may influence tumor progression. The protein is primarily found in the endoplasmic reticulum membrane, plasma membrane, and autophagosomes, with recruitment to specific membrane contact sites under cholesterol-rich conditions.