Recombinant GGA2 protein (His tag)

Catalog Number	548489
Synonyms	Gamma-adaptin-related protein 2; Golgi-localized, gamma ear-containing, ARF-binding protein 2; VHS domain and ear domain of gamma-adaptin; Vear
Species	Human
Expression System	E. coli
Accession	Q9UJY4
Molecular Weight	Predictes a molecular mass of 37.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	1-314
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 1-314 aa (Q9UJY4) 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 GGA2 (Gamma-adaptin-related protein 2) Fragment (1-314) is a high-purity protein designed for studying protein sorting and trafficking mechanisms. This fragment fully encompasses the VHS domain, making it an ideal tool for investigating domain-specific interactions with ubiquitinated proteins and cargo molecules containing DXXLL motifs. ADP-ribosylation factor-binding protein GGA2 is a key regulator of protein sorting and trafficking between the trans-Golgi network (TGN) and endosomes in human cells. It mediates ARF-dependent recruitment of clathrin to the TGN and binds both ubiquitinated proteins and membrane cargo molecules through cytosolic acidic cluster-dileucine (DXXLL) motifs. GGA2 facilitates the export of GPCR receptors like ADRA2B to the cell surface and regulates retrograde transport of phosphorylated BACE1 from endosomes back to the TGN. The protein localizes primarily to the Golgi apparatus, trans-Golgi network membrane, and endosome membranes as a peripheral membrane protein, highlighting its critical role in intracellular vesicular transport pathways.