Recombinant COLD protein (His tag)

Catalog Number	533552
Synonyms	Protein coiled
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9VPR7
Gene ID	33237
Molecular Weight	Predictes a molecular mass of 13.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	26-124
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 26-124 aa (Q9VPR7) 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 UPAR/Ly6 domain-containing protein cold (Protein coiled) fragment (residues 26-124) from Drosophila melanogaster. This 99-amino acid fragment represents a stable, soluble domain ideal for structural studies and functional investigations of septate junction assembly and paracellular barrier formation. The full-length UPAR/Ly6 domain-containing protein cold is essential for septate junction assembly in Drosophila melanogaster, organizing the preassembly and transport of key junction proteins such as dlg1/disks large 1 and Nrx-IV/Neurexin-IV. It plays critical roles in maintaining paracellular barrier functions in trachea, hindgut, salivary gland, and the hemolymph-brain barrier through epithelial and glial cell septate junctions. Additionally, it contributes to epithelial wound-healing responses and mediates cell-cell adhesion during junction formation. The protein localizes to multiple membrane compartments including endosomes, endoplasmic reticulum, and cell membranes, where it is anchored via GPI-linkage and positioned on the extracellular/lumenal side, with specific accumulation at septate junctions.