Recombinant BOUD protein (His tag)

Catalog Number	533003
Synonyms	Protein boudin
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9W3T7
Gene ID	31644
Molecular Weight	Predictes a molecular mass of 12.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	32-125
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 32-125 aa (Q9W3T7) 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 bou (Protein boudin) fragment (residues 32-125) from Drosophila melanogaster, representing a stable and soluble unit ideal for investigating septate junction assembly and paracellular barrier functions in epithelial and glial cells. Protein boudin, encoded by the bou gene, plays a critical role in establishing and maintaining paracellular barriers through septate junctions in Drosophila melanogaster. It is essential for tracheal and peripheral nervous system barrier functions, contributing to septate junction assembly by organizing the preassembly and transport of key junction proteins like dlg1, Nrx-IV, and kune. Additionally, it participates in chitin fiber organization during tracheal development. Localized to the cell membrane via a GPI-anchor, particularly at apicolateral regions and septate junctions, boudin is also secreted, potentially via extracellular vesicles called 'boudosomes,' allowing it to act non-autonomously on distant tissues by diffusing through the extracellular space and integrating into cell membranes to support junctional integrity.