Recombinant CAPS protein (His tag)

Catalog Number	532880
Synonyms	Calcium-activated protein for secretion
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q9NHE5
Gene ID	49968
Molecular Weight	Predictes a molecular mass of 32.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	1106-1371
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1106-1371 aa (Q9NHE5) 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	This product is a recombinant protein fragment of Calcium-dependent secretion activator (Cadps) from Drosophila melanogaster, encompassing residues 1106-1371. This 266-amino acid fragment has been computationally designed for optimal stability and solubility, making it an ideal tool for structural studies and biochemical assays investigating calcium-regulated exocytosis mechanisms. The full-length Calcium-dependent secretion activator is a calcium-binding protein crucial for exocytosis of neurotransmitter-filled vesicles and neuropeptides. It specifically mediates calcium-dependent exocytosis of dense-core vesicles while also participating in small clear synaptic vesicle release. The protein localizes to cytoplasmic vesicle membranes and synapses, where it is enriched in presynaptic termini across all classes of peripheral and central synapses. It demonstrates uniform distribution across different synapse types regardless of vesicular content composition, indicating its fundamental role in vesicle fusion processes rather than specificity for particular vesicle classes.