Recombinant CPLX3 protein (His tag)

Catalog Number	549600
Synonyms	Complexin III; CPX III
Species	Human
Expression System	E. coli
Accession	Q8WVH0
Molecular Weight	Predictes a molecular mass of 15.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	33-155
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 33-155 aa (Q8WVH0) 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 Complexin-3 (CPX III) Fragment (aa 33-155) is a high-purity protein designed for neuroscience and synaptic biology research. This 123-amino acid fragment, derived from the Homo sapiens CPLX3 gene, represents a stable and soluble unit ideal for structural studies, biochemical assays, and functional investigations into synaptic vesicle regulation. Complexin-3 (CPX III) is a key regulatory protein involved in SNARE-mediated synaptic vesicle fusion, playing a critical role in maintaining synaptic ultrastructure and neurotransmission in the retina. It enhances synaptic transmission by modulating neurotransmitter exocytosis at photoreceptor ribbon synapses, specifically suppressing tonic Ca^{2+} vesicle release to reduce baseline noise while facilitating evoked synchronous and asynchronous release. The protein localizes to synapses and the cell membrane via lipid anchoring, with enrichment at synaptic terminals, particularly at glycinergic contacts in the retina's inner nuclear layer. This fragment (aa 33-155) was selected computationally for its stability and solubility, enabling focused studies on Complexin-3's functional domains without the full-length protein's complexity.