

CPLX3 Protein, Human (HEK293, His)

Cat. No.:	HY-P76848
Synonyms:	Complexin-3; Complexin III; CPX III
Species:	Human
Source:	HEK293
Accession:	Q8WVH0 (M1-K154)
Gene ID:	594855
Molecular Weight:	Approximately 27-33 kDa

PROPERTIES

AA Sequence	<p> M A F M V K T M V G G Q L K N L T G S L G G G E D K G D G D K S A A E A Q G M S R E E Y E E Y Q K Q L V E E K M E R D A Q F T Q R K A E R A T L R S H F R D K Y R L P K N E T D E S Q I Q M A G G D V E L P R E L A K M I E E D T E E E E E K A S V L G Q L A S L P G L N L G S L K D K A Q A T L G D L K Q S A E K </p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p> CPLX3, a complexin protein, intricately modulates the SNARE protein complex, thereby playing a pivotal role in the regulation of synaptic vesicle fusion. Its significance extends to the maintenance of synaptic ultrastructure in the adult retina, highlighting its involvement in fundamental neuronal processes. Functionally, CPLX3 exerts a positive influence on synaptic transmission by modulating the availability of synaptic vesicles and facilitating neurotransmitter exocytosis, particularly at photoreceptor ribbon synapses in the retina. Additionally, CPLX3 contributes to the suppression of tonic photoreceptor activity and baseline 'noise' through the inhibition of Ca(2+) vesicle tonic release, while promoting evoked synchronous and asynchronous Ca(2+) vesicle release. The molecular basis of its regulatory role lies in its interaction with the SNARE core complex, specifically binding to SNAP25, VAMP2, and STX1A, underscoring its multifaceted involvement in </p>
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the intricate machinery of neuronal communication.

Caution: Product has not been fully validated for medical applications. For research use only.

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