## Recombinant Human Complexin-2/CPLX2 Protein (His Tag)

## Catalog Number: PKSH030970

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	E.coli-derived Human Complexin-2/CPLX2 protein Asp 2-Lys 134, with an N-terminal
	His
Calculated MW	16.8 kDa
Observed MW	21 kDa
Accession	Q6PUV4-1
Bio-activity	Not validated for activity
Properties	
Purity	>90 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

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Complexin-2 (CPLX2), a member of the complexin/synaphin family, is a soluble pre-synaptic protein believed to regulate neurotransmitter release from pre-synaptic terminals. Complexins are soluble proteins that regulate the activity of soluble N-ethylmaleimide-sensitive factor attachment protein receptor (SNARE) complexes necessary for vesicle fusion. Complexins are unable to bind to monomeric SNARE proteins but bind with high affinity to ternary SNARE complexes and with lower affinity to target SNARE complexes. Complexin 1 (CX1) and complexin 2 (CX2) are presynaptic proteins that modulate neurotransmitter release and are used as markers of inhibitory and excitatory synapses, respectively. CPLX2 is localized in pre-synaptic terminals in mature brain. The G71-P89 region of CPLX2 is essential and sufficient for preferential axonal distribution. CPLX2 participates in the Ca(2+)-sensitive regulatory pathway for zymogen granule exocytosis. Complexin-2 is a key player in normal neurological function, and its downregulation could lead to changes in neurotransmitter release sufficient to cause significant behavioural abnormalities such as depression. It is involved in synaptogenesis and the modulation of neurotransmitter release.