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CPLX1 Rabbit pAb

Catalog # AP97091

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	O14810
Other Accession	O14810
Reactivity	Rat, Mouse
Predicted	Pig, Human, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	15030
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CPLX1
Epitope Specificity	31-100/134
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the complexin/synaphin family.
SUBUNIT	Binds to the SNARE core complex containing SNAP25, VAMP2 and STX1A.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Complexin 1 and Complexin 2, also designated Synaphin 1 and Synaphin 2, contain an a-helical middle domain of approximately 58 amino acids. Complexin 1 and Complexin 2 are expressed in presynaptic terminals of inhibitory and excitatory hippocampal neurons, respectively, and in cytoplasmic pools during early stages of development. Complexins promote SNARE (soluble N-ethylmaleimide-sensitive factor attachment protein receptors) precomplex formation by binding to synaxin with its a-helical domain. Complexins are important regulators of transmitter release at a late step in calcium dependent neurotransmitter release or immediately after the calcium-triggering step of fast synchronous transmitter release and preceding vesicle fusion. Neurons lacking complexins show reduced transmitter release efficiency due to decreased calcium sensitivity of the synaptic secretion process. Complexin 2 may play a role in LTP (long term potentiation) following tetanic stimulation. A progressive loss of Complexin 2 occurs in the brains of mice carrying the Huntington disease mutation, an autosomal dominant neurodegenerative disorder. Changes in the neurotransmitter release might contribute to the motor, emotional and cognitive dysfunctions seen in these mice.

Additional Information

Gene ID	10815
Other Names	CPX-I; CPX1; DEE63; EIEE63; 921-S; CPLX1_BOVIN; CPLX1; CPLX1_HUMAN; Complexin I (CPX I); Synaphin-2; CPLX1_MOUSE; CPLX1_RAT; complexin 1

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CPLX1
Function	Positively regulates a late step in exocytosis of various cytoplasmic vesicles, such as synaptic vesicles and other secretory vesicles (PubMed:21785414). Organizes the SNAREs into a cross-linked zigzag topology that, when interposed between the vesicle and plasma membranes, is incompatible with fusion, thereby preventing SNAREs from releasing neurotransmitters until an action potential arrives at the synapse (PubMed:21785414). Also involved in glucose-induced secretion of insulin by pancreatic beta-cells. Essential for motor behavior.
Cellular Location	Cytoplasm, cytosol {ECO:0000250|UniProtKB:P63040}. Perikaryon {ECO:0000250|UniProtKB:P63040}. Presynapse {ECO:0000250|UniProtKB:P63040}. Note=Enriched at synaptic-releasing sites in mature neurons. {ECO:0000250|UniProtKB:P63040}
Tissue Location	Nervous system. In hippocampus and cerebellum, expressed mainly by inhibitory neurons. Overexpressed in substantia nigra from patients with Parkinson disease

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.