10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CPLX1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9412c

Product Information

Application	IHC-P, WB, E
Primary Accession	O14810
Other Accession	P63041, P63040, Q4R4N1, Q0IIL7
Reactivity	Human, Mouse
Predicted	Bovine, Monkey, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23961
Calculated MW	15030
Antigen Region	33-60

Additional Information

Gene ID	10815
Other Names	Complexin-1, Complexin I, CPX I, Synaphin-2, CPLX1
Target/Specificity	This CPLX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 33-60 amino acids from the Central region of human CPLX1.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CPLX1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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

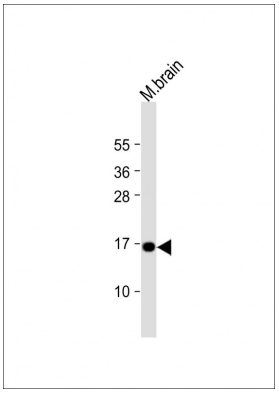
Background

CPLX1 encoded by the complexin/synaphin gene family are cytosolic proteins that function in synaptic vesicle exocytosis. These proteins bind syntaxin, part of the SNAP receptor. The protein product of this gene binds to the SNAP receptor complex and disrupts it, allowing transmitter release.

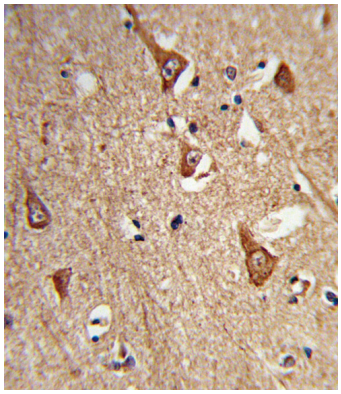
References

Salimi, K., et al. Synapse 62(4):273-282(2008)
Giraudo, C.G., et al. Science 313(5787):676-680(2006)
Kishi, T., et al. Schizophr. Res. 82 (2-3), 185-189 (2006) :
Basso, M., et al. Proteomics 4(12):3943-3952(2004)
Chen, X., et al. Neuron 33(3):397-409(2002)

Images



Anti-CPLX1 Antibody (Center) at 1:1000 dilution + mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 15 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human brain tissue reacted with CPLX1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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