

NLGN2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP54372

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q8NFZ4
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	90820
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NLGN1
Epitope Specificity	251-350/835
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Single-pass type I membrane protein. Cell junction, synapse, postsynaptic cell membrane. Cell junction, synapse, presynaptic cell membrane. Note=Detected at postsynaptic membranes in brain. Detected at dendritic spines in cultured neurons. Colocalizes with GPHN and ARHGEF9 at neuronal cell membranes (By similarity). Localized at presynaptic membranes in retina. Colocalizes with GABRG2 at inhibitory synapses in the retina.
SIMILARITY	Belongs to the type-B carboxylesterase/lipase family.
SUBUNIT	Interacts with NRXN1, NRXN2 and NRXN3. Interacts (via its C-terminus) with DLG4/PSD-95 (via PDZ domain 3). Interacts with INADL. Interacts with GPHN.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Neuroligins are a family of plasma membrane proteins that possess an N-terminal hydrophobic domain, a large esterase homology domain, a single transmembrane region, a short cytoplasmic domain, and an EF-hand binding domain (1,2). Members of the neuroligin family include Neuroligin 1, Neuroligin 2 and Neuroligin 3. Neuroligins are expressed in excitatory neuronal synaptic clefts. Neuroligins play a role in the formation and remodeling of CNS synapses by binding to b-neurexins, a family of neuronal cell surface proteins. Neuroexin 1b binds to the EF-hand domain of Neuroligin 1 and requires calcium ion. Neuroligins also bind to PSD-95, which may recruit ion channels and neurotransmitter receptors to the synapses.

Additional Information

Gene ID	57555
Other Names	Neuroligin-2, NLGN2, KIAA1366
Target/Specificity	Expressed in the blood vessel walls. Detected in colon, brain and pancreas

islets of Langerhans (at protein level). Detected in brain, and at lower levels in pancreas islet beta cells.

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,Flow-Cyt=1 µg/Test,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	NLGN2
Synonyms	KIAA1366
Function	Transmembrane scaffolding protein involved in cell-cell interactions via its interactions with neurexin family members. Mediates cell-cell interactions both in neurons and in other types of cells, such as Langerhans beta cells. Plays a role in synapse function and synaptic signal transmission, especially via gamma-aminobutyric acid receptors (GABA(A) receptors). Functions by recruiting and clustering synaptic proteins. Promotes clustering of postsynaptic GABRG2 and GPHN. Promotes clustering of postsynaptic LHFPL4 (By similarity). Modulates signaling by inhibitory synapses, and thereby plays a role in controlling the ratio of signaling by excitatory and inhibitory synapses and information processing. Required for normal signal amplitude from inhibitory synapses, but is not essential for normal signal frequency. May promote the initial formation of synapses, but is not essential for this. In vitro, triggers the de novo formation of presynaptic structures. Mediates cell-cell interactions between Langerhans beta cells and modulates insulin secretion (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Postsynaptic cell membrane. Presynaptic cell membrane. Note=Detected at postsynaptic membranes in brain. Detected at dendritic spines in cultured neurons. Colocalizes with GPHN and ARHGEF9 at neuronal cell membranes (By similarity). Localized at presynaptic membranes in retina. Colocalizes with GABRG2 at inhibitory synapses in the retina (By similarity).
Tissue Location	Expressed in the blood vessel walls. Detected in colon, brain and pancreas islets of Langerhans (at protein level) Detected in brain, and at lower levels in pancreas islet beta cells

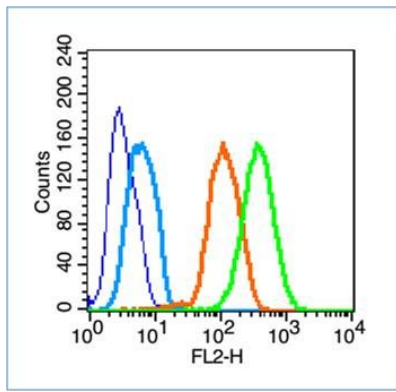
Images

Blank control (blue line): U251 (fixed with 70% ethanol for 5 min at -20°C).

Primary Antibody (green line): Rabbit Anti- Neuroligin 2 antibody (AP54372), Dilution: 1 µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: 1 µg /test.



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