

## Product datasheet for **TA328902**

### **Nlgn2 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DLGPRAYDRFPGDS, corresponding to amino acid residues 657-670 of rat Neuroligin 2 . Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	neuroligin 2
Database Link:	<a href="#">NP_446444</a> <a href="#">Entrez Gene 216856 Mouse</a> <a href="#">Entrez Gene 117096 Rat</a> <a href="#">Q62888</a>



[View online »](#)

**Background:**

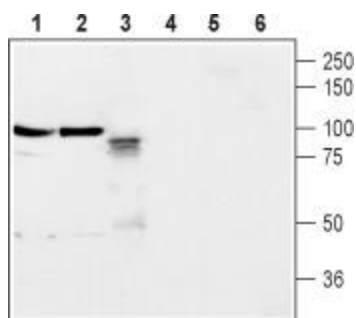
Neuroligins (NLGNs) are family of postsynaptic cell adhesion molecules that play an important role in synaptic development and function. Four genes encode for the different members of the neuroigin family in mammals: NLGN 1-4, which are differentially enriched in postsynaptic specializations of synapses. Neuroigin 2 (NLGN2) is expressed in neurons in the brain and also in pancreatic  $\beta$  cells where it facilitates insulin secretion. Synaptic maturation is promoted by the binding of Neuroigin 2 with presynaptic Neurexins, and these interactions are restricted to particular combinations of isoforms of the binding partners. NLGN2 plays a role in synapse function and synaptic signal transmission, especially via  $\gamma$ -aminobutyric acid receptors (GABA(A) receptors). NLGN2 modulates signaling by inhibitory synapses, and thereby plays a role in controlling the ratio of signaling by excitatory and inhibitory synapses and information processing. Recent studies identified a loss-of-function mutation of NLGN2 in schizophrenia patients, suggesting an indispensable role of NLGN2 in regulating GABAergic functions<sup>5</sup>.

**Synonyms:**

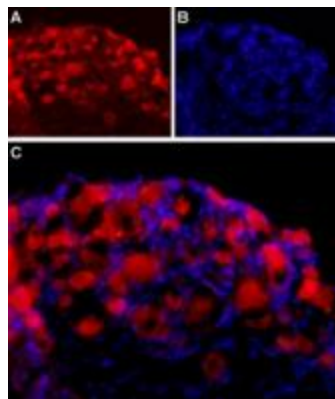
KIAA1366

**Note:**

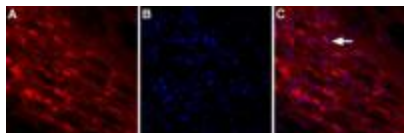
This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

**Product images:**


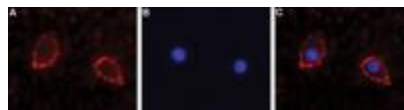
Western blot analysis of rat brain membrane (lanes 1 and 4), mouse brain membrane (lanes 2 and 5) and rat PC-12 cells (lanes 3 and 6): 1-3. Anti-Neuroigin 2 (extracellular) antibody, (1:400). 4-6. Anti-Neuroigin 2 (extracellular) antibody preincubated with the control peptide antigen.



Expression of Neuroigin 2 in rat DRG. Immunohistochemical staining of adult rat dorsal root ganglion (DRG) using Anti-Neuroigin 2 (extracellular) antibody followed by goat anti-rabbit-AlexaFluor-594 secondary antibody. A. Neuroigin 2 labeling (red) appears in the cell bodies of the DRG neurons. B. Nuclear staining using DAPI as the counter stain (blue). C. Merged image of A and B.



Expression of Neuroligin-2 in rat brain. Immunohistochemical staining of rat reticular thalamic nucleus using Anti-Neuroligin-2 (extracellular) antibody. A. Neuroligin-2 staining (red) is detected in neuronal outlines (arrow). B. Nucleus staining using DAPI as the counterstain. C. Merged images of A and B.



Expression of Neuroligin 2 in rat PC-12 cells. Immunocytochemical staining of intact living rat PC-12 cells. A. Extracellular staining of cells using Anti-Neuroligin 2 (extracellular) antibody, (1:25), followed by goat anti-rabbit-AlexaFluor-594 secondary antibody (red). B. Nuclear staining using DAPI as the counterstain (blue). C. Merged images of A and B.