

## Product datasheet for **TA328900**

### **Nrxn1 Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	WB
<b>Recommended Dilution:</b>	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Peptide (C)KPRHQKDAKHPQMIK, corresponding to amino acid residues 546-560 of rat Neurexin 1a . Extracellular, N-terminus.
<b>Formulation:</b>	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% NaN <sub>3</sub> .
<b>Reconstitution Method:</b>	Add 50 ul double distilled water (DDW) to the lyophilized powder.
<b>Purification:</b>	Affinity purified on immobilized antigen.
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	neurexin 1
<b>Database Link:</b>	<a href="#">NP_068535</a> <a href="#">Entrez Gene 9378 Human</a> <a href="#">Entrez Gene 18189 Mouse</a> <a href="#">Entrez Gene 60391 Rat</a> <a href="#">Q63372</a>



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**Background:**

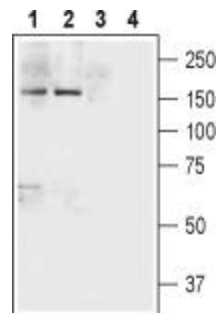
Neurexins (NRXNs) are a family of transmembrane, synaptic adhesion molecules. NRXNs were identified as receptors for  $\alpha$ -latrotoxin, a presynaptic toxin that triggers massive neurotransmitter release<sup>1</sup>. Neurexins are largely presynaptic proteins that form a trans-synaptic cell-adhesion complex with postsynaptic  $\alpha$ -neuroligins. They are encoded by three genes (NRXN1, NRXN2 and NRXN3), each using an upstream promoter to produce the longer  $\alpha$ -isoform ( $\alpha$ -NRXNs) and a downstream promoter to generate a shorter  $\beta$ -isoform ( $\beta$ -NRXNs). The  $\alpha$ -isoforms and  $\beta$ -isoforms of each neurexin are single-pass transmembrane proteins maintaining identical transmembrane and intracellular domains but having distinct extracellular domains. NRXNs in neurons localize to the presynaptic membrane and bind trans-synaptically to postsynaptic adhesion molecules and receptors. Neurexins are expressed in all neurons, and are subject to extensive alternative splicing, generating >1,000 splice variants, some of which exhibit highly regulated developmental and spatial expression patterns. The extracellular domain of neurexin 1a (NRXN1a) is composed of three neurexin repeats (I, II, and III), which each contains the modules LNS-EGF-LNS. NRXN1a binds endogenous ligands including neuroligins, LRRTM family members, neurexophilin,  $\alpha$ -dystroglycan, and GABA(A) receptors. NRXN1a gene mutations have been identified in neuropsychiatric diseases including Schizophrenia (SCZ) and Autism Spectrum Disorder (ASD).

**Synonyms:**

DKFZp313P2036; FLJ35941; KIAA0578; OTTHUMP00000200525

**Note:**

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

**Product images:**

Western blot analysis of rat brain (lanes 1 and 3) and mouse brain (lanes 2 and 4) lysates: 1, 2. Anti-Neurexin 1 $\alpha$  (extracellular) antibody, (1:400). 3, 4. Anti-Neurexin 1 $\alpha$  (extracellular) antibody, preincubated with the control peptide antigen.