Datasheet for ABIN361483

anti-GRIN2B antibody (pTyr1252)

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Overview

Quantity:	100 µL
Target:	GRIN2B
Binding Specificity:	pTyr1252
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GRIN2B antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyr1252 conjugated to KLH
Specificity:	Specific for ~180k NMDAR NR2B subunit protein phosphorylated at Tyr1252. Immunolabeling of the NMDA NR2B subunit band is blocked by the phosphopeptide used as the antigen but not by the corresponding dephosphopeptide. Immunolabeling is also blocked by (-phosphatase treatment. The antibody may also show some slight reactivity with Tyr1246 of NR2A.
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Predicted Reactivity:	bovine, canine, chicken, human, non-human primate, zebra fish
Purification:	Antigen Affinity Purified from Pooled Serum

Target Details

Target:	GRIN2B
Alternative Name:	GRIN2B (GRIN2B Products)
Background:	The NMDA receptor (NMDAR) plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer's, epilepsy and ischemic neuronal cell death (Grosshans et al., 2002, Wenthold et al., 2003, Carroll and Zukin, 2002). The rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned. The NR1 protein can form NMDA activated channels when expressed in Xenopus oocytes but the currents in such channels are much smaller than those seen in situ. Channels with more physiological characteristics are produced when the NR1 subunit is combined with one or more of the NMDAR2 (NR2 A-D) subunits (Ishii et al., 1993). Phosphorylation of Tyr1252 is thought to potentiate NMDA receptor-dependent influx of calcium (Takasu et al., 2002). Anti-Phospho-Tyr1252 NMDA Receptor NR2B Subunit Western blot of rat hippocampal lysate showing specific immunolabeling of the ~180k NR2B subunit of the NMDAR phosphorylated at Tyr1252 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: (-Ptase). The blot is identical to the control except that it was incubated in (-Ptase (1200 units for 30 min) before being exposed to the phospho-Tyr1252 NMDA NR2B subunit antibody. The immunolabeling is completely eliminated by treatment with (-Ptase.
Molecular Weight:	'180 kDa
Gene ID:	24410
UniProt:	Q00960
Pathways:	Response to Growth Hormone Stimulus, Synaptic Membrane, Feeding Behaviour, Regulation of long-term Neuronal Synaptic Plasticity

Application Details

Application Notes:	Recommended Dilution: WB: 1:1000 IHC: 1:400 Quality Control: Western blots performed on each lot.
Restrictions:	For Research Use only

Handling

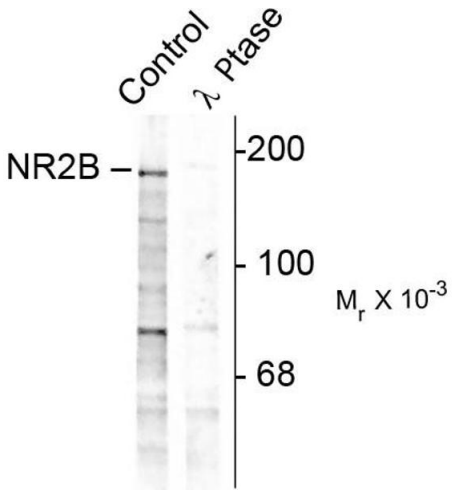
Format:	Liquid
Buffer:	100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50 % glycerol.
Storage:	-20 °C

Publications

Product cited in:

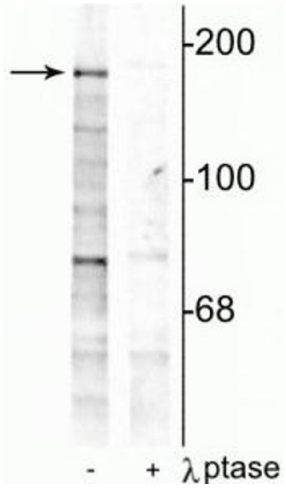
Yang, Xu, Li, Duan, Fu, Zhang, Zhao, Qiao, Chen, Geng, Che, Cao, Wang, Zhang, Long, He, Cui, Chen, Wang, Liu: "Cloning and characterization of a novel intracellular protein p48.2 that negatively regulates cell cycle progression." in: **The international journal of biochemistry & cell biology**, Vol. 41, Issue 11, pp. 2240-50, (2009) (PubMed).

Validation report #104331 for Multiplex Immunohistochemistry (mIHC)



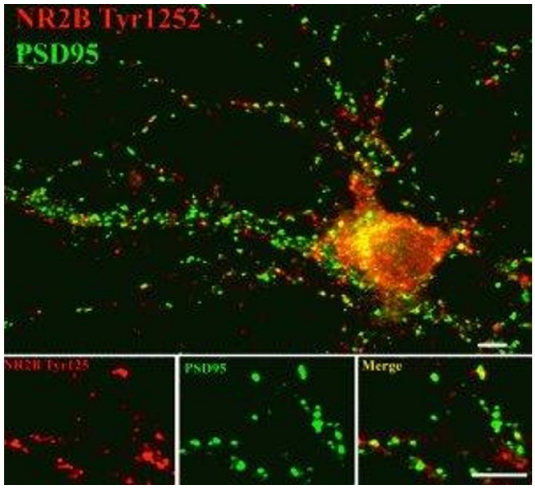
Western Blotting

Image 1. Western blots of rat hippocampal lysate showing specific immunolabeling of the ~180k NR2B subunit of the NMDAR phosphorylated at Tyr1252 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: (-Ptase). The blot is identical to the control except that it was incubated in (-Ptase (1200 units for 30 min) before being exposed to the phospho-Tyr1252 NMDA NR2B subunit antibody. The immunolabeling is completely eliminated by treatment with (-Ptase.



Western Blotting

Image 2. Western blot of rat hippocampal lysate showing specific immunolabeling of the ~180 kDa NR2B subunit phosphorylated at Tyr1252 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with lambda phosphatase (λ-Ptase, 1200 units for 30 min).



Immunostaining

Image 3. Immunostaining of 14 DIV rat cortical neurons showing NR2B phosphorylated at Tyr1252 in red and PSD95 in green. Photo courtesy of Gang Liu.