

ARG30132 Phospho GluR1 Antibody Panel

Package: 1 kit
Store at: -20°C

Component

Cat. No.	Component Name	Host clonality	Reactivity	Application	Package
ARG52314	anti-GluR1 antibody [RH95]	Mouse mAb	Ms, Rat	WB	50 µl
ARG52316	anti-GluR1 Subunit phospho (Ser845) antibody	Rabbit pAb	Rat	IHC-Fr, WB	50 µl
ARG52315	anti-GluR1 Subunit phospho (Ser831) antibody	Rabbit pAb	Rat	WB	50 µl
ARG65350	Goat anti-Mouse IgG antibody (HRP)	Goat pAb	Ms	ELISA, IHC-P, WB	50 µl
ARG65351	Goat anti-Rabbit IgG antibody (HRP)	Goat pAb	Rb	ELISA, IHC-P, WB	50 µl

Summary

Product Description	<p>AMPA receptors (AMPA) are both glutamate receptors and cation channels that are integral to plasticity and synaptic transmission at many postsynaptic membranes. AMPARs are composed of four types of subunits, designated as GluR1-GluR4, which combine to form tetramers. Phosphorylation of AMPARs can regulate channel localization, conductance, and open probability. GluR1 has four known phosphorylation sites at serine 818 (S818), S831, threonine 840, and S845. The first to receive attention was S831, a site phosphorylated by protein kinase C (PKC) and CaMKII, which increases its phosphorylation following LTP. Activity-dependent synaptic trafficking of GluR1 was shown to depend on S845, a protein kinase A (PKA) site, and S818, a PKC site. The phosphorylation of S845 seems to be for targeting GluR1 to the plasma membrane. Dephosphorylation of the S845 site on the GluR1 subunit has been correlated with LTD and down-regulation of cell surface GluR1 by a brief N-methyl-D-aspartate (NMDA) treatment.</p> <p>This antibody panel investigates the phosphorylated situation of AMPAR. Upon the phosphorylation of AMPAR by PKA or PKC, it triggers the AMPAR trafficking to the plasma membrane. However, dephosphorylation of S845 site on the GluR1 reduces expression level on the plasma through endocytosis. This antibody panel is useful for determining if the neurons undergo LTP or LTD.</p>
Target Name	GluR1
Alternate Names	Phospho GluR1 antibody; GluR1 antibody; GluR1 Subunit phospho (Ser831) antibody; GluR1 Subunit phospho (Ser845) antibody

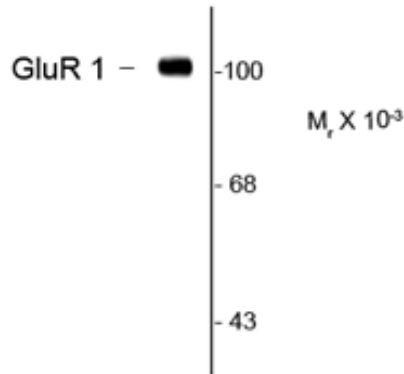
Properties

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

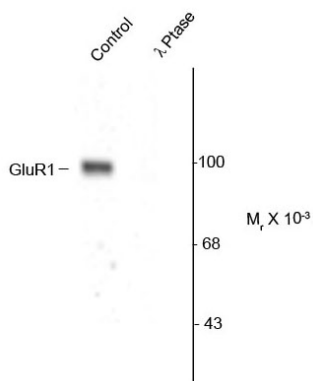
Gene Full Name	Antibody Panel for Phospho GluR1
Research Area	Immune System antibody; Neuroscience antibody

Images



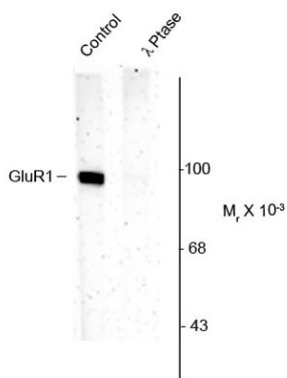
ARG52314 anti-GluR1 antibody [RH95] WB image

Western Blot: rat hippocampal lysate showing specific immunolabeling of the ~105k GluR1 protein stained with GluR1 antibody (ARG52314).



ARG52316 anti-GluR1 Subunit phospho (Ser845) antibody WB image

Western Blot: rat hippocampal lysate showing specific immunolabeling of the ~100k GluR1 protein phosphorylated at Ser845 stained with GluR1 Ser845 antibody (ARG52316). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: λ -Ptase). The blot is identical to the control except that the second lane (lambda-phosphatase: λ -Ptase). The blot is identical to the control except that it was incubated in λ -Ptase (1200 units for 30 min) before being exposed to the GluR1 Ser845 antibody (ARG52316). The immunolabeling is completely eliminated by treatment with λ -Ptase.



ARG52315 anti-GluR1 Subunit phospho (Ser831) antibody WB image

Western blot: Rat hippocampal lysate showing phospho-specific immunolabeling of the ~100 kDa GluR1 protein phosphorylated at Ser831 stained with ARG52315 anti-GluR1 Subunit phospho (Ser831) antibody.