

Datasheet for 200-301-D61**GluR1 Antibody****Overview**

Description:	Anti-GluR1 (MOUSE) Monoclonal Antibody - 200-301-D61
Item No.:	200-301-D61
Size:	100 µL
Applications:	WB, IF
Reactivity:	Mouse, Rat
Host Species:	Mouse

Product Details

Background:	GluR1 Monoclonal Antibody detects GluR1. The ion channels activated by glutamate are typically divided into two classes. Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR) while those activated by α -amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as AMPA receptors (AMPA). The AMPAR are comprised of four distinct glutamate receptor subunits designated (GluR1-4) and they play key roles in virtually all excitatory neurotransmission in the brain. GluR1 monoclonal antibody is ideal for investigators involved in Neuroscience.
Synonyms:	Glutamate receptor 1, GluR1, AMPA-selective glutamate receptor 1, GluR-A, GluR-K1, Glutamate receptor ionotropic, AMPA 1
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	RH95
Format:	IgG2a

Target Details

Gene Name:	Gria1
Reactivity:	Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-GluR1 Monoclonal Antibody was produced by repeated immunizations with GluR1-Synthetic peptide corresponding to amino acid residues from the N-terminal region.
Purity/Specificity:	Anti-GluR1 Monoclonal Antibody is directed against rat GluR1 protein. The antibody was Protein G purified from cell culture supernatant. Reactivity is expected against mouse and human. Cross reactivity with GluR1 from other species has not been determined.
Relevant Links:	• UniProtKB - P19490 • GeneID - 50592 • UniProtKB - P19490.2

Application Details

Tested Applications:	WB
Suggested Applications:	IF (Based on references)
Application Note:	Anti-GluR1 (Mouse) antibody has been tested by Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 100 kDa in size corresponding to GluR1 proteins in Western Blot in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
WB:	1:1000

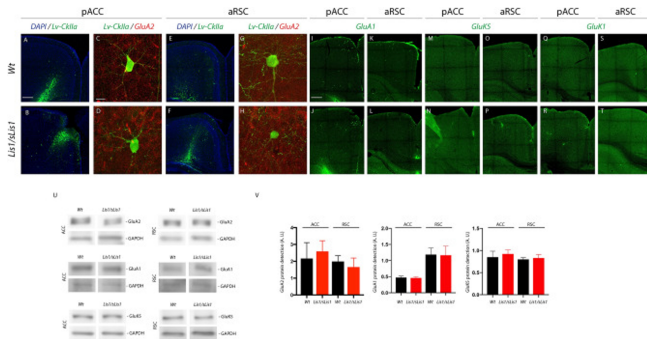
Formulation

Physical State:	Liquid
Concentration:	Titred value sufficient to run approximately 10 mini blots.
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

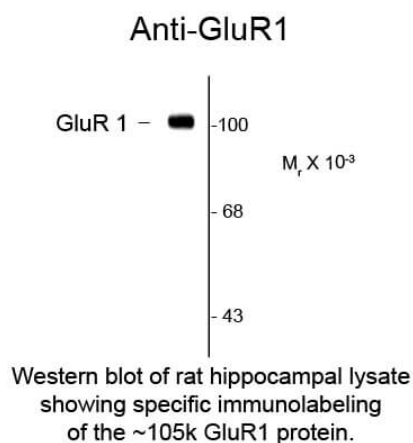


Immunofluorescence Microscopy

GluA2, GluA1, GluK5, and GluK1 subunit expression in the pACC and aRSC. A, B Lentiviral injection of LV-CkIIa-GFP (green) in ACC in WT and Lis1/sLis1. B, D GFP expression in pyramidal cells infected with LV-CkIIa-GFP (green) and GluA2 expression (red) in ACC in WT and Lis1/sLis1. E, F Lentiviral injection of LV-CkIIa-GFP (green) in RSC in WT and Lis1/sLis1. G, H GFP expression in pyramidal cells infected with LV-CkIIa-GFP (green) and GluA2 expression (red) in RSC in WT and Lis1/sLis1. I–L GluA1 expression (green) in ACC and RSC in WT and Lis1/sLis1. M–P GluK5 expression (green) in ACC and RSC in WT and Lis1/sLis1. Q–T GluK1 expression (green) in ACC and RSC in WT and Lis1/sLis1. U detection of total GluA2, GluA1, and GluK5 proteins in ACC and RSC cortices in WT and Lis1/sLis1. GAPDH is used as a control. V quantification of GluA2, GluA1, and GluK5 proteins in arbitrary units (AU); the western blot for GluK1 was not specific enough to be quantified. T-test analysis was not significant for all markers and for both cortices. GluA2-ACC: WT = 4, Lis1/sLis1 = 5, $p = 0.49$; GluA2-RSC: WT = 4, Lis1/sLis1 = 5, $p = 0.49$. GluA1-ACC: WT = 4, Lis1/sLis1 = 5, $p = 0.62$; GluA1-RSC: WT = 4, Lis1/sLis1 = 4, $p = 0.91$. GluK5-ACC: WT = 4, Lis1/sLis1 = 4, $p = 0.40$; GluK5-RSC: WT = 3, Lis1/sLis1 = 3, $p = 0.59$. Scale bars: in A 100 μm , in B 10 μm , and in I 100 μm .

Fig 8.

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Western Blot

Western Blot of Mouse anti-GluR-1 antibody. Lane 1: rat hippocampal lysate. Lane 2: none. Load: 10 µg per lane. Primary antibody: GluR2 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~ 105kDa/~105kDa for GluR1 protein. Other band(s): none.

References

- Dominguez-Sala E et al. Properties of the epileptiform activity in the cingulate cortex of a mouse model of LIS1 dysfunction. *Brain Struct Funct.* (2022)

Disclaimer

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