

Datasheet for 612-401-D77**mGluR5/1a Antibody****Overview**

Description:	Anti-mGluR5/1a (RABBIT) Antibody - 612-401-D77
Item No.:	612-401-D77
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background: mGluR5/1a antibody detects GluR5/1a protein. The metabotropic glutamate receptors (mGluRs) are key receptors in the modulation of excitatory synaptic transmission in the central nervous system. They are implicated in many forms of neural plasticity as well as learning and memory and drug abuse. Group I metabotropic glutamate receptors (consisting of mGluR1 and mGluR5) are G-protein-coupled neurotransmitter receptors that are localized in the perisynaptic region of the postsynaptic membrane. When activated, Group I mGluRs lead to stimulation of phospholipase and activation of Protein Kinase C. In contrast, activation of Group II metabotropic receptors (mGluR2 and mGluR3) leads to inhibition of adenylate cyclase. The mGluR1 receptor may also be critically involved in limiting the deleterious effects of excitotoxicity. In contrast, the mGluR5 receptor appears to be essential for late phase LTP in area CA1 of the hippocampus. mGluR5/1a is ideal for investigators involved neuronal circuitry and more generally in Neuroscience.

Synonyms:	mGluR5, Metabotropic Glutamate Receptor 5/1a
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Grm5
Reactivity:	Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-mGluR5/1a Antibody was produced in rabbit by repeated immunizations with synthetic peptide corresponding to amino acid residues from the C-terminal region conjugated to KLH.
Purity/Specificity:	Anti-mGluR5/1a antibody is directed against GluR5/1a. GluR5/1a antibody was affinity purified from monospecific antiserum by immunoaffinity purification. Immunolabeling is blocked by preadsorption of antibody with the peptide used as antigen to generate the antibody. The antibody is a total IgG fraction. Expect reactivity with the following species based on sequence homology: human, mouse, rat. Cross reactivity with mGluR5/1a from other species has not been determined.
Relevant Links:	• UniProtKB - P31424 • GenelD - 24418 • UniProtKB - P31424.2

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-mGluR5/1a (Rabbit) antibody is tested for use in Western Blotting and IHC. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 125 kDa monomer and 250 kDa dimer in size corresponding to mGluR5 and mGluR1 proteins 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.
IHC:	1:500
WB:	1:1000

Formulation

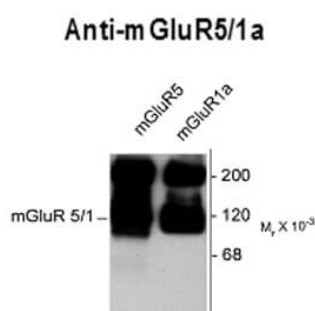
Physical State:	Liquid
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice
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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



Western blot of 10 ug of HEK 293 cells expressing mGluR1a and mGluR5 showing the specific immunolabeling of the ~125k monomer and the ~250k dimers of mGluR1a and mGluR5.

Western Blot

Western Blot of Rabbit Anti-metabotropic glutamate receptors (mGluR) 5/1a antibody. Lane 1: HEK 293 cells expressing mGluR5. Lane 2: HEK 293 cells expressing mGluR1a. Load: 10 µg per lane. Primary antibody: mGluR5/1a antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~125kDa monomer and the ~250kDa dimers of mGluR1a and mGluR5. Other band(s): none.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.