



Qty: 100 µL

Rabbit anti-Metabotropic Glutamate-R 1α

Catalog No. 484400

Lot No.

Rabbit Anti-Metabotropic Glutamate Receptor, 1α

FORM

This affinity-purified rabbit polyclonal antibody is supplied as a 100 µL aliquot in 10 mM HEPES (pH 7.5), 150 mM NaCl containing BSA and 50% glycerol.

PAD: ZMD.652

IMMUNOGEN

Peptide from the C-terminal region of rat mGluR 1α.

SPECIFICITY

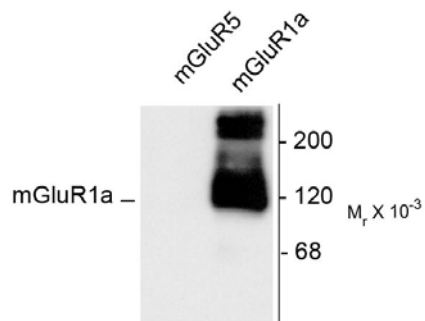
Specific for the ~125 kDa monomer and the ~250 kDa mGluR 1α dimer. Immunolabeling blocked by preadsorption of antibody with the peptide used to generate the antibody.

REACTIVITY

This antibody has been directly tested for reactivity in Western blots in rat tissues.

Sample	Western Blotting
Rat	+++

(Excellent +++, Good ++, Poor +, No reactivity 0, Not applicable N/A, Not determined ND)



Western blot of 10 µg of HEK 293 cells expressing mGluR 1α and mGluR5 showing the specific immunolabeling of the ~125 kDa monomer and the ~250 kDa dimer of mGluR 1α. The mGluR 1α antibody shows no reactivity toward mGluR5.

(cont')

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PI484400

(Rev 10/08) DCC-08-1089

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USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1:1000

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

BACKGROUND

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.¹⁻³ 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.⁴

REFERENCES

1. Bhattacharya M, et al., J Neurosci 24:8752-8761, 2004.
2. Francesconi W, et al., Brain Res 1022:12-18, 2004.
3. Wilson RI, Nicoll RA, Nature (London) 410:588-592, 2001.
4. Blaabjerg M, et al., Exp Neurol 183:573-580, 2003.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary antibody conjugates.

Conjugate	Goat anti-rabbit IgG (H+L)	Goat anti-mouse IgG (H+L)	Ex/Em*	Fluorescence similar to--
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

*Excitation/emission (nm); **Not applicable

For additional secondary antibody conjugates, visit www.invitrogen.com/antibodies

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