OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA328830

Grm2 Rabbit Polyclonal Antibody

Product data:

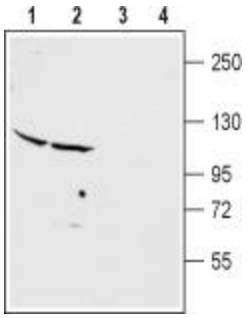
Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide SLSRGADGSRHIC, corresponding to amino acids 109-121 of rat mGluR2. Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	glutamate metabotropic receptor 2
Database Link:	NP_001099181 Entrez Gene 2912 HumanEntrez Gene 108068 MouseEntrez Gene 24415 Rat P31421

View online »

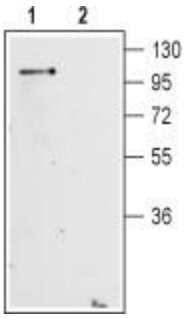
Background: L-Glutamate, the major excitatory neurotransmitter in the central nervous system, operates through several receptors that are categorized as ionotropic (ligand-gated cation channels) or metabotropic (G-protein coupled receptors). The metabotropic glutamate receptors family includes eight members (mGluR1-8) that have been divided into three groups based on their sequence homology, pharmacology and signal transduction. Group II of the metabotropic glutamate receptors includes the mGluR2 and mGluR3 receptors. The receptors present the typical G-protein coupled receptor (GPCR) signature topology: seven transmembrane domains with a large extracellular N-terminus domain that contains the glutamate binding site, and an intracellular C-terminus one. mGluR2 and mGluR3 are coupled to Gi/Go and hence inhibit cAMP formation following receptor activation. mGluR2 is widely distributed throughout the brain with high expression in several limbic areas including the cortex, hippocampus and amygdala. mGluR2 is localized primarily presinaptically, although postsynaptical localization has also been described. In line with its presynaptical localization, mGluR2 is thought to function as an autoreceptor in a negative feedback mechanism that suppress further release of glutamate from the cell on which it is expressed. The involvement of mGluR2 in neuronal excitability and synaptic transmission suggests that modulation of this receptor is a promising strategy for the treatment of neurological and neuropsychiatric disorders such as anxiety, schizophrenia, and pain.

Synonyms: GLUR2; GPRC1B; mGlu2; MGLUR2

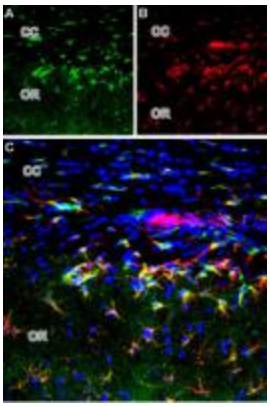
Product images:



Western blot analysis of rat cerebellum (lanes 1 and 3) and cortex (lanes 2 and 4) membranes: 1, 2. Anti-mGluR2 (extracellular) antibody, (1:400). 3, 4. Anti-mGluR2 (extracellular) antibody, preincubated with the control peptide antigen.



Western blot analysis of mouse brain membranes: 1. Anti-mGluR2 (extracellular) antibody, (1:200). 2. Anti-mGluR2 antibody, preincubated with the control peptide antigen.



Expression of mGluR2 in rat brain. Immunohistochemical staining of perfusion-fixed brain frozen sections using Anti-mGluR2 (extracellular) antibody. A. mGluR2 (green) is visualized in the corpus callosum (CC) and hippocampal stratum oriens (OR). B. Glial fibrillary acidic protein (GFAP) (red), a marker of astrocytes. C. Merge of the two images demonstrates expression of mGluR2 in astrocytes. DAPI is used as the nuclear counterstain (blue).