

## Product datasheet for **TA328831**

### Grm3 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:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)GDHNFMRREIKIEGD, corresponding to amino acids 24-38 of rat mGluR3. 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% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Confirmed by mass-spectroscopy and amino acid analysis.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	glutamate metabotropic receptor 3
Database Link:	<a href="#">NP_001099182</a> <a href="#">Entrez Gene 108069 Mouse</a> <a href="#">Entrez Gene 24416 Rat</a> <a href="#">P31422</a>



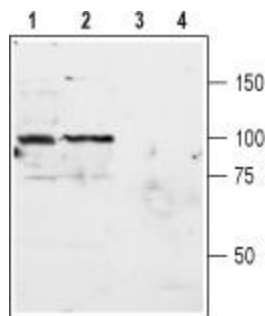
[View online »](#)

**Background:**

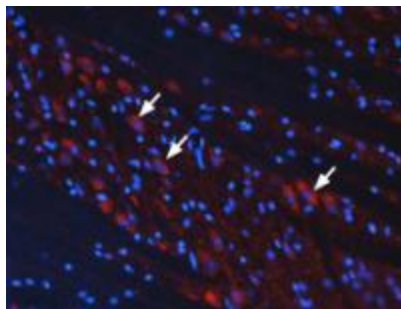
L-Glutamate, the major excitatory neurotransmitter in the central nervous system, operates through several receptors that are categorized as ionotropic (ligand-gated cation channels) or metabotropic (G-protein coupled receptors). The metabotropic glutamate receptors family includes eight members (mGluR1-8) 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. mGluR3 is expressed in neurons and glia in many brain regions including cerebral cortex, hippocampus and brain stem. mGluR3 expression is predominantly presynaptic consistent with its role as an inhibitory autoreceptor, that is, activation of mGluR3 by glutamate inhibits additional glutamate release from the same neurons. Several lines of evidence suggest that mGluR3 is important for long term depression, glial function and neuroprotection. Some studies, though not all, have shown genetic association of mGluR3 gene polymorphisms with psychosis and with schizophrenia-related phenotypes. Based in these findings, mGluR3 has been suggested as a therapeutic target for both psychosis and schizophrenia.

**Synonyms:**

GLUR3; GPRC1C; mGlu3; MGLUR3

**Product images:**

Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain membranes: 1, 2. Anti-mGluR3 (extracellular) antibody, (1:600). 3, 4. Anti-mGluR3 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of mGluR3 in rat brain stem. Immunohistochemical staining of frozen brain stem sections using Anti-mGluR3 (extracellular) antibody, (1:100) followed by goat anti-rabbit AlexaFluor-555 secondary antibody (red). Staining is present in neuronal cell bodies (arrows) in the brainstem nuclei. Hoechst 33342 is used as the counterstain (blue).