

## Product datasheet for **TA328811**

### Gabra6 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide QLEDEGNFYSENVSRILDN(C), corresponding to amino acid residues 20-37 of rat GABA(A) a6 Receptor. Extracellullar, 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, 0.05% 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:	gamma-aminobutyric acid type A receptor alpha 6 subunit
Database Link:	<a href="#">NP_068613</a> <a href="#">Entrez Gene 14399 Mouse</a> <a href="#">Entrez Gene 29708 Rat</a> <a href="#">P30191</a>



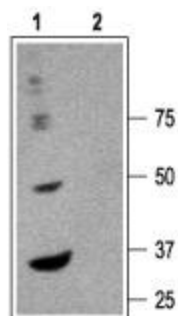
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**Background:**

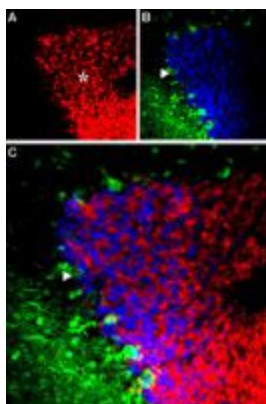
GABA ( $\gamma$ -aminobutyric acid) is the major inhibitory neurotransmitter in the brain. Its production, release, reuptake and metabolism occur in the nervous system. The GABA transmitter interacts with two major types of receptors: ionotropic GABA(A) and the metabotropic GABA(B) receptors. The GABA(A) receptor belongs to the ligand gated ion channel superfamily. The GABA(A) R, is a heteropentamer, with all of its five subunits contributing to the pore formation. To date, eight subunit isoforms were cloned:  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ ,  $\rho$ ,  $\sigma$ , and  $\tau$ . Six  $\alpha$  subunit isoforms were described to exist in mammals ( $\alpha 1$ - $\alpha 6$ ). The native GABA(A) receptor, in most cases, consists of  $2\alpha$ ,  $2\beta$  and  $1\gamma$  subunit. The  $\alpha$  subunit is the most common subunit and is expressed ubiquitously. It determines the affinities for allosteric ligands shown by GABA(A)R. A possible role for the GABA(A) receptors in alcohol action has been derived from animal studies, in vitro cell models and human research which suggested an important role for GABA(A)  $\alpha 6$  along with  $\beta 2$ ,  $\alpha 1$  and  $\gamma 2$ , in alcohol related phenotypes. In Canavan disease (inherited leukodystrophy), low level of expression of GABA(A)  $\alpha 6$  was reported.

**Synonyms:**

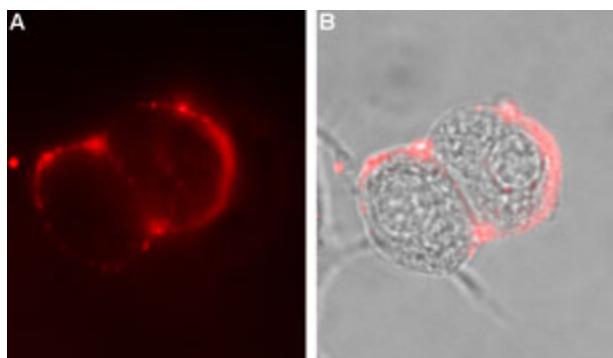
MGC116903; MGC116904

**Product images:**

Western blot analysis of rat brain membranes: 1. Anti-GABA(A)  $\alpha 6$  Receptor (extracellular) antibody, (1:200). 2. Anti-GABA(A)  $\alpha 6$  Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of GABA(A)  $\alpha 6$  Receptor in mouse cerebellum. Immunohistochemical staining of mouse cerebellum using Anti-GABA(A)  $\alpha 6$  Receptor (extracellular) antibody. A. GABA(A)  $\alpha 6$  Receptor (red) appears in the granule layer (asterisk). B. Parvalbumin (green) appears in Purkinje cells and in the molecular layer. C. Merge of GABA(A)  $\alpha 6$  Receptor and parvalbumin indicates that GABA(A)  $\alpha 6$  Receptor is restricted to granule cells. DAPI is used as the counterstain (blue).



Expression of GABA(A)  $\alpha 6$  receptor in rat PC12 cells. Immunocytochemical staining of intact living rat pheochromocytoma (PC12) cells. A. Extracellular staining of cells using Anti-GABA(A)  $\alpha 6$  Receptor (extracellular) antibody, (1:100), (red). B. Merge of A with the live view of the cell.