

Product datasheet for **TA328818**

Gabrq 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:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide DYRMHEKLWVPDC, corresponding to amino acid residues 131-143 of mouse GABA(A) ? Receptor. 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, 0.05% NaN ₃ .
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 (GABA) A receptor, subunit theta
Database Link:	NP_065234 Entrez Gene 55879 Human Entrez Gene 65187 Rat Entrez Gene 57249 Mouse Q9JLF1



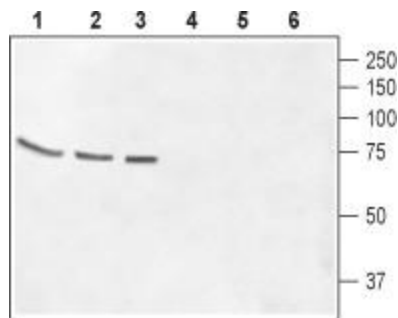
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Background:

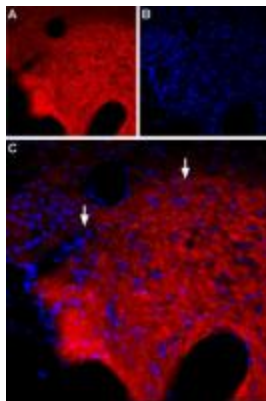
The A-type receptors for γ -aminobutyric acid (GABA(A)) mediate the majority of fast inhibitory transmission in the mammalian central nervous system. Many clinically important drugs including benzodiazepines, barbiturates and general anesthetics act as positive allosteric modulators of this receptor. GABA(A) receptors are pentameric ligand-gated ion-channels, composed of subunits from many subunit classes: $\alpha 1$ - $\alpha 6$, $\beta 1$ - $\beta 4$, $\gamma 1$ - $\gamma 4$, δ , ϵ , ζ , ρ and $\theta 1$ - $\theta 3$. The arrangement of subunits around the channel is probably $\beta\alpha\beta\alpha\beta$ counter-clockwise when viewed from the extracellular space, ϵ and ρ subunits can replace the γ and δ subunit within the pentamer, whereas the ζ subunit could replace a β subunit. The localized expression of this subunit is consistent with the fact that all GABA(A) receptor subunit genes have distinct expression patterns in the brain. The θ subunit has been reported to be strongly expressed in the striatum and has been localized to the locus ceruleus. Impairment of the γ -aminobutyric acid (GABA) signaling system is believed to partially account for behavioral and cognitive deficits associated with schizophrenia and mood disorders. Reduction of GABA(A) mediated signal transmission has also been associated with anxiety, panic, impaired learning and memory.

Synonyms:

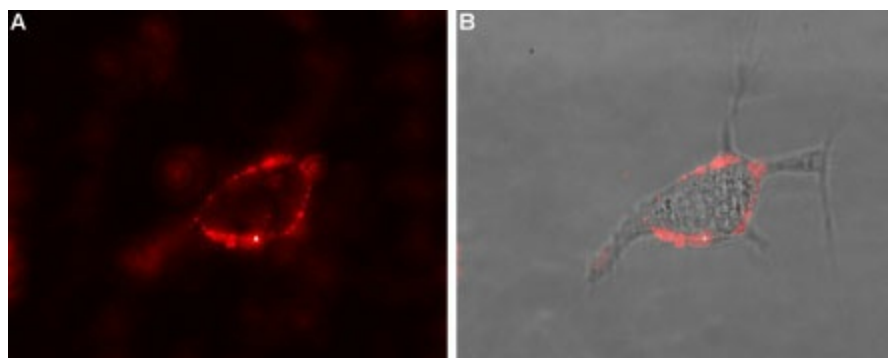
MGC129629; MGC129630; THETA

Product images:


Western blot analysis of rat brain membrane (lanes 1 and 4), mouse brain membrane (lanes 2 and 5) and CCF-STGI cell lysate (lanes 3 and 6): 1-3. Anti-GABA(A) θ Receptor (extracellular) antibody, (1:500). 4-6. Anti-GABA(A) θ Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of of GABA(A) θ Receptor in rat hypothalamus. Immunohistochemical staining of rat hypothalamus using Anti-GABA(A) θ Receptor (extracellular) antibody. A. GABA(A) θ Receptor staining (red) is detected in the mammillary nucleus which is part of the posterior hypothalamus (arrows show the border of the nucleus). B. Nuclear staining using DAPI as the counterstain (blue). C. Merge images of A and B.



Expression of GABA(A) α receptor in rat PC12 cells. Immunocytochemical staining of intact living rat Pheochromocytoma (PC12) cells. A. Extracellular staining of cells using Anti-GABA(A) α Receptor (extracellular) antibody, (1:50), (red). B. Merge of A with the live view of the cell.