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GABAA Rβ2 Polyclonal Antibody

Catalog # AP70008

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P47870
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59150

Additional Information

Gene ID	2561
Other Names	GABRB2; Gamma-aminobutyric acid receptor subunit beta-2; GABA(A) receptor subunit beta-2
Dilution	WB~~1:1000 IHC-P~~Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

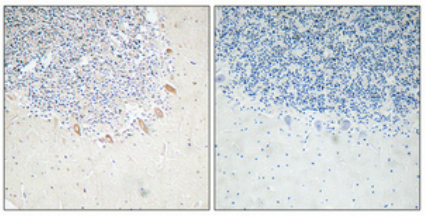
Name	GABRB2 (HGNC:4082)
Function	Beta subunit of the heteropentameric ligand-gated chloride channel gated by gamma-aminobutyric acid (GABA), a major inhibitory neurotransmitter in the brain (PubMed:19763268, PubMed:27789573, PubMed:29950725, PubMed:8264558). GABA-gated chloride channels, also named GABA(A) receptors (GABAAR), consist of five subunits arranged around a central pore and contain GABA active binding site(s) located at the alpha and beta subunit interface(s) (PubMed:29950725). When activated by GABA, GABAARs selectively allow the flow of chloride anions across the cell membrane down their electrochemical gradient (By similarity). Chloride influx into the postsynaptic neuron following GABAAR opening decreases the neuron ability to generate a new action potential, thereby reducing nerve transmission (By similarity). GABAARs containing alpha-1 and beta-2 or -3 subunits exhibit synaptogenic activity; the gamma-2 subunit being necessary but not sufficient to induce rapid synaptic contacts formation (PubMed:23909897, PubMed:25489750). Extrasynaptic beta-2 receptors contribute to the tonic GABAergic inhibition (By similarity). Beta-containing GABAARs can simultaneously bind GABA and histamine where histamine binds at the

	interface of two neighboring beta subunits, which may be involved in the regulation of sleep and wakefulness (By similarity).
Cellular Location	Postsynaptic cell membrane {ECO:0000250|UniProtKB:P63138}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P63138}
Tissue Location	Isoform 1 and isoform 2 show reduced expression in schizophrenic brain. Isoform 3 shows increased expression in schizophrenic and bipolar disorder brains while isoform 4 shows reduced expression.

Background

Component of the heteropentameric receptor for GABA, the major inhibitory neurotransmitter in the vertebrate brain. Functions also as histamine receptor and mediates cellular responses to histamine. Functions as receptor for diazepines and various anesthetics, such as pentobarbital; these are bound at a separate allosteric effector binding site. Functions as ligand- gated chloride channel.

Images



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.