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GABRB3 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF2888a

Specification

GABRB3 Antibody (internal region) - Product Information

Application	**IHC, E**
Primary Accession	P28472
Other Accession	NP_000805.1, NP_068712.1, 2562, 14402 (mouse), 24922 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**54116**

GABRB3 Antibody (internal region) - Additional Information

Gene ID 2562

Other Names
Gamma-aminobutyric acid receptor subunit beta-3, GABA(A) receptor subunit beta-3, GABRB3

Dilution
IHC~~1:100~500
E~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GABRB3 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

GABRB3 Antibody (internal region) - Protein Information

Name GABRB3 (HGNC:4083)

Function
Beta subunit of the heteropentameric ligand-gated chloride channel gated by gamma-aminobutyric acid (GABA), a major inhibitory neurotransmitter in the brain (PubMed:<a

href="http://www.uniprot.org/citations/14993607" target="_blank">14993607, PubMed:18514161, PubMed:22243422, PubMed:22303015, PubMed:24909990, PubMed:26950270, PubMed:30602789). 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:24909990, PubMed:30140029, PubMed:30602789). GABAARs containing beta-3/GABRB3 subunit are found at both synaptic and extrasynaptic sites (By similarity). When activated by GABA, GABAARs selectively allow the flow of chloride anions across the cell membrane down their electrochemical gradient (PubMed:14993607, PubMed:22303015, PubMed:26950270, PubMed:30602789). Chloride influx into the postsynaptic neuron following GABAAR opening decreases the neuron ability to generate a new action potential, thereby reducing nerve transmission (PubMed:22303015, PubMed:26950270). GABAARs containing alpha-1 and beta-3 subunits exhibit synaptogenic activity; the gamma-2 subunit being necessary but not sufficient to induce rapid synaptic contacts formation (PubMed:25489750). Extrasynaptic beta-3 receptors contribute to the tonic GABAergic inhibition (By similarity). GABAARs containing alpha-1, beta-3 and epsilon subunits may also permit spontaneous chloride channel activity while preserving the structural information required for GABA-gated openings (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 (PubMed:18281286, PubMed:24909990, PubMed:35355020). Plays an important role in somatosensation and in the production of antinociception (By similarity).

Cellular Location
Postsynaptic cell membrane; Multi-pass membrane protein {ECO:0000269|PubMed:24909990, ECO:0000269|PubMed:35355020, ECO:0007744|PDB:7QN7}. Cell membrane; Multi-pass membrane protein {ECO:0000269|PubMed:24909990, ECO:0000269|PubMed:35355020, ECO:0007744|PDB:7QN7}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P63079}

GABRB3 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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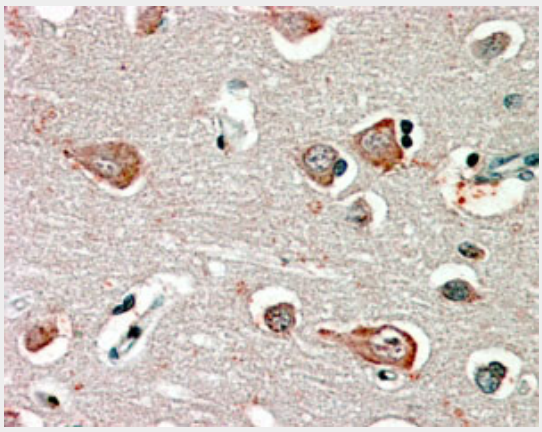
GABRB3 Antibody (internal region) - Images



AF2888a (2.5 µg/ml) staining of paraffin embedded Human Cortex. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

GABRB3 Antibody (internal region) - Background

This antibody is expected to recognize both reported isoforms (NP_000805.1, NP_068712.1).

GABRB3 Antibody (internal region) - References

Hyperglycosylation and reduced GABA currents of mutated GABRB3 polypeptide in remitting childhood absence epilepsy. Tanaka M, Olsen RW, Medina MT, Schwartz E, Alonso ME, Duron RM, Castro-Ortega R, Martinez-Juarez IE, Pascual-Castroviejo I, Machado-Salas J, Silva R, Bailey JN, Bai D, Ochoa A, Jara-Prado A, Pineda G, Macdonald RL, Delgado-Escueta AV. Am. J. Hum. Genet. 2008 Jun 82 (6): 1249-61. PMID: 18514161