

## **Anti-GABRB2** Antibody

Rabbit polyclonal antibody to GABRB2 Catalog # AP60868

## Specification

# Anti-GABRB2 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Calculated MW WB, IHC <u>P47870</u> <u>P63137</u> Human, Mouse, Rat, Bovine Rabbit Polyclonal 59150

## Anti-GABRB2 Antibody - Additional Information

Gene ID 2561

**Other Names** Gamma-aminobutyric acid receptor subunit beta-2; GABA(A) receptor subunit beta-2

Target/Specificity Recognizes endogenous levels of GABRB2 protein.

Dilution WB~~WB (1/500 - 1/1000), IH (1/50 - 1/100) IHC~~1:100~500

**Format** Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage Store at -20 °C.Stable for 12 months from date of receipt

# Anti-GABRB2 Antibody - Protein Information

### Name GABRB2 (<u>HGNC:4082</u>)

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/19763268" target="\_blank">19763268</a>, PubMed:<a href="http://www.uniprot.org/citations/27789573" target="\_blank">27789573</a>, PubMed:<a href="http://www.uniprot.org/citations/29950725" target="\_blank">29950725</a>, PubMed:<a href="http://www.uniprot.org/citations/29950725" target="\_blank">29950725</a>, PubMed:<a href="http://www.uniprot.org/citations/29950725" target="\_blank">8264558</a>). 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:<a href="http://www.uniprot.org/citations/29950725" target="\_blank">29950725</a>). 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:<a href="http://www.uniprot.org/citations/23909897" target="\_blank">23909897</a>, PubMed:<a href="http://www.uniprot.org/citations/25489750" target="\_blank">25489750</a>). 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.

## Anti-GABRB2 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Anti-GABRB2 Antibody - Images



Western blot analysis of GABRB2 expression in C6 (A), U87MG (B), HEK293T (C), HCC827 (D), rat



lung (E) whole cell lysates.



Immunohistochemical analysis of GABRB2 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

## Anti-GABRB2 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human GABRB2. The exact sequence is proprietary.