

**GABRA2 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP9297b**

## Specification

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### GABRA2 Antibody (C-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">P47869</a>
Other Accession	<a href="#">P23576</a> , <a href="#">P26048</a> , <a href="#">P10063</a>
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	51326
Antigen Region	378-406

### GABRA2 Antibody (C-term) - Additional Information

**Gene ID** 2555

#### Other Names

Gamma-aminobutyric acid receptor subunit alpha-2, GABA(A) receptor subunit alpha-2, GABRA2

#### Target/Specificity

This GABRA2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 378-406 amino acids from the C-terminal region of human GABRA2.

#### Dilution

WB~~1:1000  
IHC-P~~1:10~50  
FC~~1:10~50

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

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

#### Precautions

GABRA2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### GABRA2 Antibody (C-term) - Protein Information

**Name** GABRA2 ([HGNC:4076](#))

**Function** Alpha subunit of the heteropentameric ligand-gated chloride channel gated by gamma-aminobutyric acid (GABA), a major inhibitory neurotransmitter in the brain (PubMed:[10449790](#), PubMed:[29961870](#), PubMed:[31032849](#)). 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 interfaces (By similarity). When activated by GABA, GABAARs selectively allow the flow of chloride anions across the cell membrane down their electrochemical gradient (PubMed:[10449790](#)). 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). The alpha-2 subunit exhibits synaptogenic activity together with beta-2 and very little to no activity together with beta-3, the gamma-2 subunit being necessary but not sufficient to induce rapid synaptic contacts formation (By similarity).

#### Cellular Location

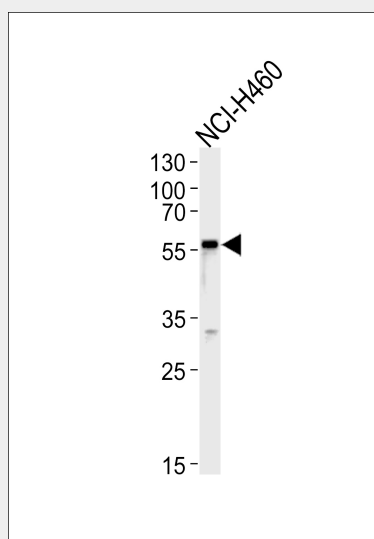
Postsynaptic cell membrane {ECO:0000250|UniProtKB:P26048}; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:P26048}; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P23576}. Cell projection, dendrite {ECO:0000250|UniProtKB:P26048}

#### GABRA2 Antibody (C-term) - Protocols

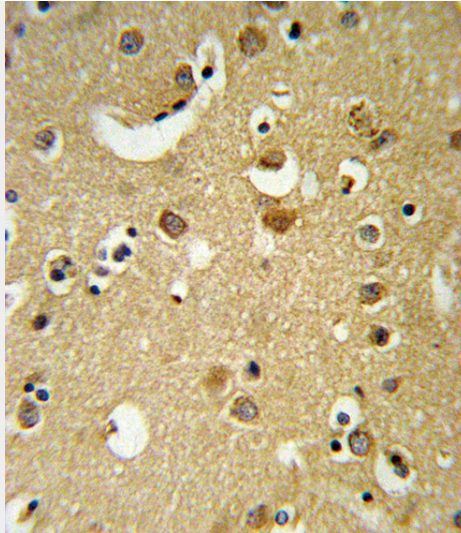
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

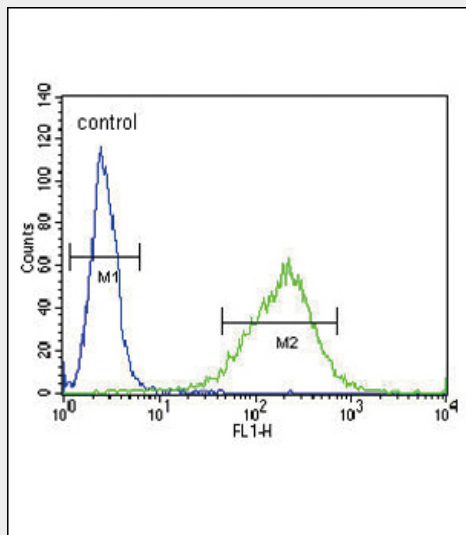
#### GABRA2 Antibody (C-term) - Images



GABRA2 Antibody (C-term) (Cat.# AP9297b) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the GABRA2 antibody detected the GABRA2 protein (arrow).



GABRA2 Antibody (C-term) (Cat. #AP9297b) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the GABRA2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



GABRA2 Antibody (C-term) (Cat. #AP9297b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### **GABRA2 Antibody (C-term) - Background**

GABRA2 is the major inhibitory neurotransmitter in the mammalian brain where it acts at GABA-A receptors, which are ligand-gated chloride channels. Chloride conductance of these channels can be modulated by agents such as benzodiazepines that bind to the GABA-A receptor. At least 16 distinct subunits of GABA-A receptors have been identified.

### **GABRA2 Antibody (C-term) - References**

- Das, S., et al., Stat Med 29 (11), 1250-1258 (2010)
- Bierut, L.J., et al., Proc. Natl. Acad. Sci. U.S.A. 107 (11), 5082-5087 (2010)
- Dixon, C.I., et al., Proc. Natl. Acad. Sci. U.S.A. 107 (5), 2289-2294 (2010)

### **GABRA2 Antibody (C-term) - Citations**

- [Ulk2 controls cortical excitatory-inhibitory balance via autophagic regulation of p62 and GABAA receptor trafficking in pyramidal neurons.](#)