

**GABRA4 Antibody (Internal)**  
**Goat Polyclonal Antibody**  
**Catalog # ALS12869****Specification**

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**GABRA4 Antibody (Internal) - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P48169</a>
Reactivity	<b>Human</b>
Host	<b>Goat</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>62kDa KDa</b>

**GABRA4 Antibody (Internal) - Additional Information****Gene ID** 2557**Other Names**

Gamma-aminobutyric acid receptor subunit alpha-4, GABA(A) receptor subunit alpha-4, GABRA4

**Target/Specificity**

Human GABRA4.

**Reconstitution & Storage**

Store at -20°C. Minimize freezing and thawing.

**Precautions**

GABRA4 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**GABRA4 Antibody (Internal) - Protein Information****Name** GABRA4 ([HGNC:4078](#))**Function**

Alpha 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/35355020" target="\_blank">35355020</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/35355020" target="\_blank">35355020</a>). When activated by GABA, GABAARs selectively allow the flow of chloride anions across the cell membrane down their electrochemical gradient (PubMed:<a href="http://www.uniprot.org/citations/35355020" target="\_blank">35355020</a>). GABAARs containing alpha-4 are predominantly extrasynaptic, contributing to tonic inhibition in dentate granule cells and thalamic relay neurons (By similarity). Extrasynaptic alpha-4-containing GABAARs control levels of excitability and network activity (By similarity). GABAAR containing alpha-4-beta-3- delta subunits 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:<a href="http://www.uniprot.org/citations/35355020" target="\_blank">35355020</a>).

#### Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q9D6F4}; Multi-pass membrane protein {ECO:0000269|PubMed:35355020, ECO:0007744|PDB:7QN5}. Postsynaptic cell membrane; Multi-pass membrane protein {ECO:0000269|PubMed:35355020, ECO:0007744|PDB:7QN5}

#### Tissue Location

Expressed in the brain. {ECO:0000250|UniProtKB:Q9D6F4}

### GABRA4 Antibody (Internal) - Protocols

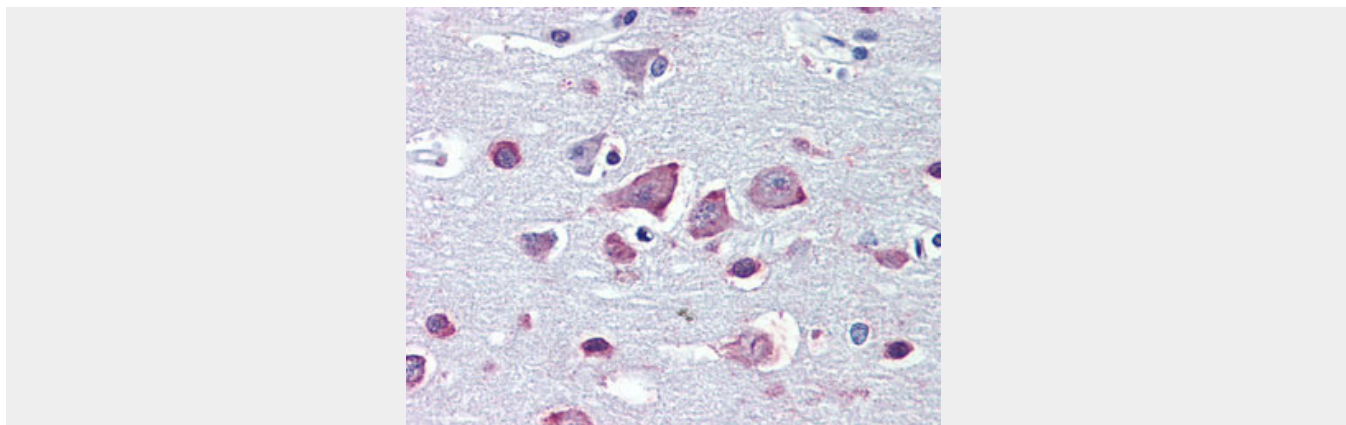
Provided below are standard protocols that you may find useful for product applications.

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

### GABRA4 Antibody (Internal) - Images



Antibody (0.1 ug/ml) staining of Human Frontal Cortex lysate (35 ug protein in RIPA buffer).



Anti-GABRA4 antibody IHC of human brain, cortex.

### **GABRA4 Antibody (Internal) - Background**

GABA, the major inhibitory neurotransmitter in the vertebrate brain, mediates neuronal inhibition by binding to the GABA/benzodiazepine receptor and opening an integral chloride channel.

### **GABRA4 Antibody (Internal) - References**

- Yang W.,et al.Eur. J. Pharmacol. 291:319-325(1995).
- Ota T.,et al.Nat. Genet. 36:40-45(2004).
- Hillier L.W.,et al.Nature 434:724-731(2005).
- Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
- McLean P.J.,et al.Genomics 26:580-586(1995).