

Goat Anti-GABRG2 Antibody (N Terminus)

Catalog # AF4291a

Product Information

Application WB, E **Primary Accession** <u>P18507</u>

Other Accession NP_944494.1, NP_000807.2, NP_944493.2, 29709, 14406, 2566

Reactivity Rate

Predicted Human, Mouse, Rat, Pig, Dog

HostGoatIsotypeIgGCalculated MW55186

Additional Information

Gene ID 2566

Other Names Gamma-aminobutyric acid receptor subunit gamma-2, GABA(A) receptor

subunit gamma-2, GABRG2

Dilution WB~~1:1000 E~~N/A

Immunogen This antibody is expected to recognize all three reported isoforms

(NP_944494.1; NP_000807.2; NP_944493.2).

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 Goat Anti-GABRG2 Antibody (N Terminus) is for research use only and not for

use in diagnostic or therapeutic procedures.

Protein Information

Name GABRG2 (<u>HGNC:4087</u>)

Function Gamma subunit of the heteropentameric ligand-gated chloride channel

gated by gamma-aminobutyric acid (GABA), a major inhibitory

neurotransmitter in the brain (PubMed:14993607, PubMed:16412217,

PubMed:23909897, PubMed:2538761, PubMed:25489750, PubMed:27864268, PubMed:29950725, 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:29950725, PubMed:30602789). When activated by GABA, GABAARs selectively allow the flow of chloride anions

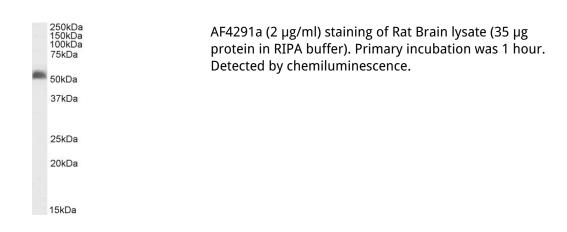
across the cell membrane down their electrochemical gradient (PubMed: 14993607, PubMed: 16412217, PubMed: 2538761,

PubMed:27864268, PubMed:29950725, PubMed:30602789). Gamma-2/GABRG2-containing GABAARs are found at both synaptic and extrasynaptic sites (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 gamma-2- containing receptors contribute to the tonic GABAergic inhibition (By similarity). GABAARs function also as histamine receptor where histamine binds at the interface of two neighboring beta subunits and potentiates GABA response in a gamma-2 subunit-controlled manner (By similarity).

Cellular Location

Postsynaptic cell membrane; Multi-pass membrane protein {ECO:0000269|PubMed:30602789, ECO:0007744|PDB:6I53}. Cell membrane; Multi-pass membrane protein {ECO:0000269|PubMed:30602789, ECO:0007744|PDB:6I53} Cell projection, dendrite {ECO:0000250|UniProtKB:P22723}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P18508}

Images



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