

Anti-GABA-A Receptor, Gamma 2 Subunit [10F10-C1-B8] Standard Size Ab01119-8.4

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

Isotype and Format: Rat IgG2b, Fc Silent™, Kappa

Clone Number: 10F10-C1-B8

Alternative Name(s) of Target: GABARG2; GABAR-G2 CAE2; ECA2; GABA(A) receptor subunit gamma-2; GABA(A) receptor, gamma 2; gamma 2; gamma-aminobutyric acid (GABA) A receptor, gamma 2; Gamma-aminobutyric acid receptor subunit gamma-2; GEFSP3; 10F10C1B8; 10F10.C1.B8

UniProt Accession Number of Target Protein: P18508

Published Application(s): IP, WB, IF, IHC

Published Species Reactivity: Rat

Immunogen: This antibody was generated in mouse against the gamma2 subunit of the GABA-A protein from rats.

Specificity: This antibody was generated against amino acids 37-53 of rat GABA-A receptor gamma2 subunit (GABRG2) and is specific for the N-terminal extracellular domain, allowing for the detection of surface expressed receptors for live imaging. GABA-A receptors are ligand-gated neurotransmitter receptors that function to mediate the fast synaptic inhibition within the brain. They are pentamers, composed from a variety of classes of subunits with gamma being just one class. Each subunit is composed of an extracellular N-terminal domain, four membrane spanning units, and a small extracellular C-terminal segment. Several mutations in the GABA(A) receptor subunit gamma-2 expression have been linked to epileptic syndromes that result in fibrile seizures.

Application Notes: In the original study, this antibody was used in Western Blot assays, immunohistochemistry (IHC) and immunoprecipitate (IP) for identification of the $\gamma 2$ subunit from rat and mouse hippocampal proteins (Joshi et al., 2011). This antibody could also be used in functional studies, for example, to show that the GABA-A receptor membrane insertion rates are specified by their subunit composition (Joshi et al, 2013), to delineate how chorein deficiency leads to upregulation of gephyrin and GABAA receptor (Kurano et al., 2006), to examine the homeostatic strengthening of inhibitory synapses as mediated by the accumulation of GABAA receptors (Rannals et al., 2011), and to demonstrate that NMDA receptor activation downregulates expression of δ Subunit-containing GABA-A receptors in cultured hippocampal neurons (Joshi et al. 2013).

Antibody First Published in: Joshi et al. A mouse monoclonal antibody against the gamma2 subunit of

GABA-A receptors. Hybridoma. 30(6): 537-42 (2011). [PMID:22149279](#)

Note on publication: Describes the original generation and characterisation of this antibody, which was raised against the gamma2 subunit of rat GABA-A receptors

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.