

Anti-GABAR [1F4] Bulk Size Ab01411-3.3-BT

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: Mouse IgG2b, Fc Silent™, Kappa

Clone Number: 1F4

Alternative Name(s) of Target: Gamma-aminobutyric acid receptor A; Gamma-aminobutyric acid receptor; Gamma-aminobutyric acid receptor subunit alpha-1; Gamma-aminobutyric acid receptor subunit beta-2; Gamma-aminobutyric acid receptor subunit gamma-2; GABA(A); GABA-A receptor; $\alpha 1\beta 2\gamma 2$ GABA-A receptor

UniProt Accession Number of Target Protein: P14867; P47870; P18507

Published Application(s): crystallography, FSEC

Published Species Reactivity: Human

Immunogen: This antibody was raised against $\alpha 1\beta 2\gamma 2$ GABA-A receptor.

Specificity: This antibody recognises $\alpha 1\beta 2\gamma 2$ GABA-A receptor which is found in up to 50% of the synapses in the brain. It's ligand, GABA is a major inhibitory transmitter in the nervous system, binds to this receptor and opens a channel permeable to chloride. Disfunctions of GABAR are found in anxiety, neurodevelopmental disorders and epilepsy.

Application Notes: FSEC: High affinity and specificity of the 1F4 antibody to $\alpha 1\beta 2\gamma 2$ GABA-A receptor was demonstrated using fluorescence-detection size exclusion chromatography with GFP-tagged receptor (shift in elution volume) (Zhu et al., 2018). Crystallography: Furthermore, this antibody was utilised in production and purification of the $\alpha 1\beta 2\gamma 2$ GABA-A receptor (Zhu et al., 2018). Finally, Fab fragments derived from the antibody were used to facilitate crystallisation and improve stabilisation of the $\alpha 1\beta 2\gamma 2$ GABA-A receptor (Zhu et al., 2018).

Antibody First Published in: Zhu et al. Structure of a human synaptic GABA-A receptor Nature. 2018 Jul;559(7712):67-72. doi: 10.1038/s41586-018-0255-3. Epub 2018 Jun 27. PMID:29950725

Note on publication: This article describes the generation of 1F4 antibody as well as Fab fragments derived from it for the purpose of purifying and analysing the structure of $\alpha 1\beta 2\gamma 2$ GABA-A receptor.

Product Form

Size: 1 mg Purified antibody in bulk size.

Purification: Protein A affinity purified

Supplied In:

PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.