Synaptic Systems

Rudolf-Wissell-Str. 28
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

GABA-A receptor β3

Cat.No. 224 404; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H_2O, then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 1000 (AP staining) (see remarks) **IP**: yes **ICC**: 1 : 500 **IHC**: 1 : 500 (see remarks) **IHC-P/FFPE**: not tested yet **EM**: yes
Immunogen	Recombinant protein corresponding to AA 344 to 429 from mouse GABA-A receptor β3 (UniProt Id: P63080)
Reactivity	Reacts with: rat (P63079), mouse (P63080). Other species not tested yet.
Specificity	Specific for GABA-A receptor β3.
Remarks	**WB**: This protein aggregates after boiling, making it necessary to run SDS-PAGE with non-boiled samples. **IHC**: This antibody requires antigen retrieval with pepsin according to: Lorincz A & Nusser Z (2008). recommended protocol

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Gamma-**a**mino**b**utyric **a**cid type **A** (**GABA-A**) receptors mediate the majority of inhibitory neurotransmission in the brain. These receptor proteins are ligand gated chloride ion channels and consist of a pentameric combination of different subunits (alpha, **beta**, gamma, delta, epsilon and rho). The resulting heterogenous population of GABA-A receptor subtypes are expressed throughout the brain with specific cellular and subcellular expression patterns.

Selected References SYSY Antibodies

Similar GABAA receptor subunit composition in somatic and axon initial segment synapses of hippocampal pyramidal cells.
Kerti-Szigeti K, Nusser Z
eLife (2016) 5: . **EM**

Synaptic GABAA receptor clustering without the γ2 subunit.
Kerti-Szigeti K, Nusser Z, Eyre MD
The Journal of neuroscience : the official journal of the Society for Neuroscience (2014) 34(31): 10219-33. **IHC**

Selected General References

GABA receptor heterogeneity modulates dendrodendritic inhibition.
Sassoè-Pognetto M, Panzanelli P, Lagier S, Fritschy JM, Lledo PM
Annals of the New York Academy of Sciences (2009) 1170: 259-63.

Synaptogenesis in the cerebellar cortex: differential regulation of gephyrin and GABAA receptors at somatic and dendritic synapses of Purkinje cells.
Viltono L, Patrizi A, Fritschy JM, Sassoè-Pognetto M
The Journal of comparative neurology (2008) 508(4): 579-91.

Compensatory alteration of inhibitory synaptic circuits in cerebellum and thalamus of gamma-aminobutyric acid type A receptor alpha1 subunit knockout mice.
Kralic JE, Sidler C, Parpan F, Homanics GE, Morrow AL, Fritschy JM
The Journal of comparative neurology (2006) 495(4): 408-21.

Postsynaptic clustering of major GABAA receptor subtypes requires the gamma 2 subunit and gephyrin.
Essrich C, Lorez M, Benson JA, Fritschy JM, Lüscher B
Nature neuroscience (1998) 1(7): 563-71.

GABAA-receptor heterogeneity in the adult rat brain: differential regional and cellular distribution of seven major subunits.
Fritschy JM, Mohler H
The Journal of comparative neurology (1995) 359(1): 154-94.

Distribution, prevalence, and drug binding profile of gamma-aminobutyric acid type A receptor subtypes differing in the beta-subunit variant.
Benke D, Fritschy JM, Trzeciak A, Bannwarth W, Mohler H
The Journal of biological chemistry (1994) 269(43): 27100-7.

Five subtypes of type A gamma-aminobutyric acid receptors identified in neurons by double and triple immunofluorescence staining with subunit-specific antibodies.
Fritschy JM, Benke D, Mertens S, Oertel WH, Bachi T, Möhler H
Proceedings of the National Academy of Sciences of the United States of America (1992) 89(15): 6726-30.