

## GABA-A receptor $\beta 3$

Cat.No. 224 411BT; Monoclonal mouse antibody, 100  $\mu$ g purified IgG (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 $\mu$ g purified IgG, lyophilized, biotin-labeled. For reconstitution add 100 $\mu$ l H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 500 up to 1 : 1000 (AP staining) (see remarks) <b>IP:</b> yes <b>ICC:</b> 1 : 500 <b>IHC:</b> 1 : 100 up to 1 : 500 (see remarks) <b>IHC-P/FFPE:</b> not tested yet
Label	biotin
Clone	261F6
Subtype	IgG2a (κ light chain)
Immunogen	Recombinant protein corresponding to AA 344 to 429 from mouse GABA-A receptor $\beta 3$ (UniProt Id: P63080)
Reactivity	Reacts with: rat (P63079), mouse (P63080). Other species not tested yet.
Specificity	Specific for GABA-A receptor $\beta 3$ .
Remarks	<b>WB:</b> Less sensitive compared to the polyclonal antibodies.  <b>IHC:</b> This antibody requires antigen retrieval with pepsin according to: Lorincz A & Nusser Z (2008). recommended protocol

### Selected General References

GABA receptor heterogeneity modulates dendrodendritic inhibition.  
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Synaptogenesis in the cerebellar cortex: differential regulation of gephyrin and GABA<sub>A</sub> receptors at somatic and dendritic synapses of Purkinje cells.  
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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 GABA<sub>A</sub> 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.

GABA<sub>A</sub>-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.

### TO BE USED IN VITRO / FOR RESEARCH ONLY

### NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Gamma-aminobutyric acid 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.