

## 35-1691: Polyclonal Antibody to GABA A Receptor $\alpha$ 3

<b>Clonality :</b>	Polyclonal
<b>Application :</b>	WB
<b>Reactivity :</b>	Rat,Mouse,Human
<b>Gene :</b>	Gabra3
<b>Gene ID :</b>	24947
<b>Uniprot ID :</b>	P20236
<b>Format :</b>	Purified
<b>Alternative Name :</b>	Gamma-aminobutyric acid receptor subunit alpha-3, Gabra3
<b>Isotype :</b>	Rabbit IgG
<b>Immunogen Information :</b>	Peptide sequence around aa. 33~37(R-R-Q-E-P)derived from Rat GABA A Receptor $\alpha$ 3.

### Description

GABA (g-aminobutyric acid) is the primary inhibitory neurotransmitter in the central nervous system and interacts with three different receptors: GABA(A), GABA(B) and GABA(C) receptor. The ionotropic GABA(A) and GABA(C) receptors are ligand-gated ion channels that produce fast inhibitory synaptic transmission. In contrast, the metabotropic GABA(B) receptor is coupled to G proteins that modulate slow inhibitory synaptic transmission (1). Functional GABA(B) receptors form heterodimers of GABA(B)R1 and GABA(B)R2 where GABA(B)R1 binds the ligand and GABA(B)R2 is the primary G protein contact site (2). Two isoforms of GABA(B)R1 have been cloned: GABA(B)R1a is a 130 kD protein and GABA(B)R1b is a 95 kD protein (3). G proteins subsequently inhibit adenylyl cyclase activity and modulate inositol phospholipid hydrolysis. GABA(B) receptors have both pre- and postsynaptic inhibitions: presynaptic GABA(B) receptors inhibit neurotransmitter release through suppression of high threshold calcium channels, while postsynaptic GABA(B) receptors inhibit through coupled activation of inwardly rectifying potassium channels. In addition to synaptic inhibition, GABA(B) receptors may also be involved in hippocampal long-term potentiation, slow wave sleep and muscle relaxation (1).

### Product Info

<b>Amount :</b>	50 $\mu$ l / 100 $\mu$ l
<b>Content :</b>	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Storage condition :</b>	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

### Application Note

Predicted MW: 51kd, Western blotting: 1:500~1:1000

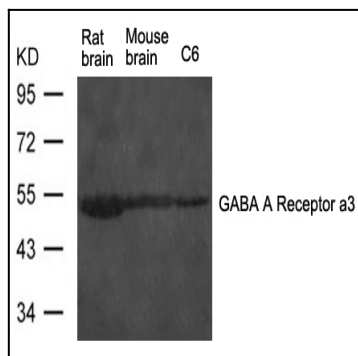


Figure 1: Western blot analysis of extract from rat brain and mouse brain tissue and C6 cells using GABA A Receptor a3 Antibody 35-1691