

# Anti-GABAA Receptor y2 Antibody

Our Anti-GABAA Receptor y2 rabbit polyclonal primary antibody from PhosphoSolutions is produced in-h Catalog # AN1403

### **Product Information**

WB, IHC **Application Primary Accession** P18508 Host Rabbit Clonality Polyclonal Isotype IgG **Calculated MW** 54077

### **Additional Information**

Gene ID 29709

**Other Names** CAE 2 antibody, CAE2 antibody, ECA 2 antibody, ECA2 antibody, GABA(A) receptor gamma 2 antibody, GABA(A) receptor subunit gamma 2 antibody, GABA(A) receptor subunit gamma-2 antibody, GABRG 2 antibody, GABRy2

antibody, Gamma aminobutyric acid (GABA) A receptor gamma 2 antibody, Gamma aminobutyric acid A receptor gamma 2 antibody, Gamma

aminobutyric acid receptor gamma 2 subunit antibody, Gamma-aminobutyric acid receptor subunit gamma-2 antibody, GBRG2\_HUMAN antibody, GEFSP 3

antibody, GEFSP3 antibody

Target/Specificity Gamma-aminobutyric acid (GABA) is the primary inhibitory neurotransmitter

> in the central nervous system, causing a hyperpolarization of the membrane through the opening of a Cl I channel associated with the GABA-A receptor (GABA-A-R) subtype. GABA-A-Rs are important therapeutic targets for a range of sedative, anxiolytic, and hypnotic agents and are implicated in several diseases including epilepsy, anxiety, depression, and substance abuse. The GABA-A-R is a multimeric subunit complex. To date six  $\alpha$ s, four  $\beta$ s and four  $\gamma$ s, plus alternative splicing variants of some of these subunits, have been identified (Olsen and Tobin, 1990; Whiting et al., 1999; Ogris et al., 2004). Injection in oocytes or mammalian cell lines of cRNA coding for α- and β-subunits results in the expression of functional GABA-A-Rs sensitive to GABA. However, co-expression of a y-subunit is required for benzodiazepine modulation. The various effects of the benzodiazepines in brain may also be mediated via different  $\alpha$ - subunits of the receptor (McKernan et al., 2000;

Mehta and Ticku, 1998; Ogris et al., 2004; P ☐tl et al., 2003). Lastly,

phosphorylation of β-subunits of the receptor has been shown to modulate GABA-A-R function (Brandon et al., 2003).

WB~~1:1000 IHC~~1:100~500 Dilution

**Format Neat Pooled Serum** 

**Storage** Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** Anti-GABAA Receptor y2 Antibody is for research use only and not for use in

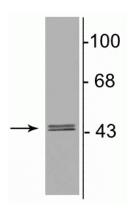
diagnostic or therapeutic procedures.

**Shipping** Blue Ice

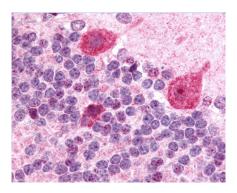
## **Background**

Gamma-aminobutyric acid (GABA) is the primary inhibitory neurotransmitter in the central nervous system, causing a hyperpolarization of the membrane through the opening of a Cl  $\Box$  channel associated with the GABA-A receptor (GABA-A-R) subtype. GABA-A-Rs are important therapeutic targets for a range of sedative, anxiolytic, and hypnotic agents and are implicated in several diseases including epilepsy, anxiety, depression, and substance abuse. The GABA-A-R is a multimeric subunit complex. To date six αs, four  $\beta$ s and four  $\gamma$ s, plus alternative splicing variants of some of these subunits, have been identified (Olsen and Tobin, 1990; Whiting et al., 1999; Ogris et al., 2004). Injection in oocytes or mammalian cell lines of cRNA coding for α- and β-subunits results in the expression of functional GABA-A-Rs sensitive to GABA. However, co-expression of a  $\gamma$ -subunit is required for benzodiazepine modulation. The various effects of the benzodiazepines in brain may also be mediated via different α- subunits of the receptor (McKernan et al., 2000; Mehta and Ticku, 1998; Ogris et al., 2004; P  $\Box$ tl et al., 2003). Lastly, phosphorylation of  $\beta$ -subunits of the receptor has been shown to modulate GABA-A-R function (Brandon et al., 2003).

## **Images**



Western blot of 10  $\mu g$  of rat hippocampal lysate showing specific immunolabeling of the ~46 kDa  $\gamma 2$ -subunit of the GABAA-R.



Immunostaining of rat cerebellum showing labeling of GABAA y2 subunit in fuchsia.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.