

Rabbit anti-Rat GABAA Receptor, g 2 (Ser327) Polyclonal Antibody | anti-GABRG2 antibody

Anti-Phospho-Ser327 GABAA Receptor, gamma2 subunit

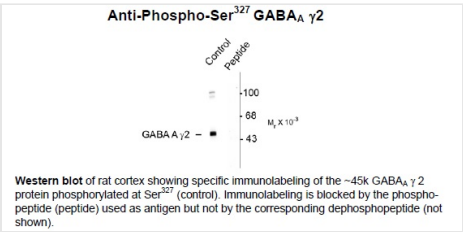
CATALOG # AAA72791	HOST Rabbit	REACTIVITY Rat	APPLICATIONS Western Blot, Dot Blot
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PRODUCT SYNONYMS

GABAA Receptor; g 2 (Ser327); Polyclonal Antibody; Anti-Phospho-Ser327 GABAA Receptor; gamma2 subunit; anti-GABRG2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Rat
Clonality	Polyclonal
Specificity	Specific for ~45k GABAA receptor gamma y2 subunit phosphorylated at Ser327 in Western Blots of rat brain homogenate.
Purity/Purification	Affinity Purified (Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns.)
Form/Format	100 ul in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.
Sequence Length	466
Applicable Applications for anti-GABRG2 antibody	WB (Western Blot), DB (Dot Blot)
Antigen	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser327 of the GABAA receptor, gamma2 subunit.
Immunogen Information	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser327 conjugated to KLH
Immunogen Species	Rat
Species Reactivity Note	The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will react with bovine, canine, chicken, mouse, human and non-human primate tissues based on the fact that these species have 100% homology with the amino acid sequence used as antigen.
Biological Significance	Gamma-aminobutyric acid (GABA) is the primary inhibitory neurotransmitter in the central nervous system. There are two major classes of GABA receptors: the GABAA and the GABAB subtype of receptors. GABAA-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 sub-stance abuse. The GABAA-R is a multimeric subunit complex. To date six alphas, four betas and four gammas, 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 alpha- and beta-subunits results in the expression of functional GABAA-Rs sensitive to GABA. However, coexpression of a gamma-subunit is required for benzodiazepine modulation. It has recently been suggested that PKCepsilon regulates the sensitivity of GABAA alpha1beta2gamma2 receptors to ethanol and benzodiazepines through phosphorylation of serine 327 in the large intracellular loop of gamma2 (Qi et al., 2007)
Preparation and Storage	For long term storage ~80 degree C is recommended, but shorter term storage at ~20 degree C is also acceptable as aliquots maybe taken without freeze/thawing due to the presence of 50% glycerol. Stock solutions are stable for a minimum of 1 year at -20 degree C.



Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-GABRG2 antibody	Affinity purified rabbit polyclonal antibody
References	• Olsen RW, Tobin AJ (1990) Molecular biology of GABAA receptors. FASEB 4:1469-1480. • Whiting PJ, Bonnert TP, McKernan RM, Farrar S, Le Bourdellès B, Heavens RP, Smith DW, Hewson L, Rigby MR, Sirinathsinghji DJS, Thompson SA, Wafford KA (1999) Molecular and functional diversity of the expanding GABAA receptor gene family. Ann NY Acad Sci 868:645-653 • Ogris W, Pörtl A, Hauer B, Ernst M, Oberto A, Wulff P, Höger H, Wisden W, Sieghart W (2004) Affinity of various benzodiazepine site ligands in mice with a point mutation in the GABAA receptor gamma2-subunit. Biochem Pharmacol 68:1621-1629. • Qi ZH, Song M, Wallace MJ, Wang D, Newton PM, McMahon T, Chou WH, Zhang C, Shokat KM, Messing RO (2007) Protein kinase Cepsilon regulates gamma-aminobutyrate type A receptor sensitivity to ethanol and benzodiazepines through phosphorylation of gamma2 subunits. J Biol Chem 282(45):33052-63.

NCBI AND UNIPROT INFORMATION

NCBI GI #	34328527
NCBI GeneID	29709
NCBI Accession #	NP_899156.1
NCBI GenBank Nucleotide #	NM_183327.1
UniProt Accession #	P18508
Molecular Weight	45
NCBI Official Full Name	gamma-aminobutyric acid receptor subunit gamma-2
NCBI Official Synonym Full Names	gamma-aminobutyric acid (GABA) A receptor, gamma 2
NCBI Official Symbol	Gabrg2
NCBI Protein Information	gamma-aminobutyric acid receptor subunit gamma-2; GABA(A) receptor subunit gamma-2; gamma-aminobutyric acid A receptor, gamma 2; gamma-aminobutyric acid A receptor, gamma 2; gamma-aminobutyric acid (GABA-A) receptor, subunit gamma 2
UniProt Protein Name	Gamma-aminobutyric acid receptor subunit gamma-2
UniProt Gene Name	Gabrg2
UniProt Entry Name	GBRG2_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.