

Product Specification Sheet
Galanin Receptor 2 (GALR2) Antibodies

Cat. GALR21-S	Rabbit Anti-Mouse GALR2 (Antiserum # 1)	SIZE: 100 ul
Cat. GALR21-A	Rabbit Anti- Mouse GALR2 (aff pure) Ig G # 1	SIZE: 100 ug
Cat. GALR21-P	Mouse GALR2 Control peptide	SIZE: 100 ug

Galanin is a 29 aa C-terminally amidated (30 aa, non-amidated in humans), highly conserved but unique neuroendocrine peptide originally isolated from intestine. The first 14 aa are fully conserved in almost all species. Galanin is found in the brain and the gut. It modulates a variety of physiological processes including cognition/memory, sensory/pain processing, neurotransmitter/hormone secretion, and feeding behavior. Several N-terminally elongated (-7-29 and -9-29) or truncated biologically active forms of galanin have also been isolated. Galanin antagonists are chimeric peptides generated by linking the amino terminal portion of galanin to substance P (galantide, M15), bradykinin (M35), the neurokinin antagonist spantide (C7) or an idealized alpha helical region (M40) (see review in refs 2 by Kask et al 1995).

Galanin mediated its biological effects by interacting with high affinity cell surface G-protein coupled receptors (GALR1-3). **GALR2** (human 387 aa; chromosome 17q25.3; rat 372 aa) is ~40% homologous with rat GALR1. The rat and human GALR2 are ~87% conserved. GALR2 is widely distributed in various areas of the brain and several peripheral tissues. GALR2 binds galanin, N-terminal galanin fragments, and chimeric peptides. However, galanin 2-29 bind GALR2 with higher affinity than GALR1.

Source of Antigen and Antibodies

Antigen	16aa peptide of mouse GLAR2 Designated (GALR21-P or control peptide). epitope location ~ C-terminus, Cytoplasmic
Antibody host/type	Rabbit, Polyclonal unpurified antiserum (Cat # GALR21-S); Rabbit, Polyclonal IgG (Cat # GALR21-A), purified over antigen-Agarose
Secondary Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
Negative Control Ab	Non-immune rabbit IgG (Cat # 20009-1) to be used as -ve control for ELISA, WB, IHC etc.

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique). An antibody made to the ERAB11 epitope has detected ~ 27 kDa protein in the brain.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence. We recommend the use of affinity purified antibody at 10-30 ug/ml in formaldehyde fixed, paraffin-embedded tissues (1).

Specificity & Cross-reactivity

Mouse GALR21-P peptide sequence has high homology with rat (90%) and human (87%) GALR2. No significant homology of GALR21-P is seen with GLAR1, GALR3 or any other G-protein coupled receptors. Antibody cross-reactivity with GALR2 from various species is not known. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site).

General References:

Kolakowski LF et al (1998) Gene Accession # AF042784
Smith KE et al (1997) JBC 272, 24612-24616; Wang S et al (1997) Mol. Pharmacol. 52, 337-343; Fathi Z et al (198) Mol Brain Res. 58, 156-169

2. Citations for ADI Antibodies (see updates at the web site)

Hawes JJ, 2004, J. Comp. Neurol. 479, 410-423, WB, IHC

*This product is for *in vitro* research use only.

Related material available from ADI

Anti-Galanin, Galanin receptors (1-3)

GALR21-S-A-P

71221A

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