

Product Specification Sheet

Galanin Receptor 1 (GALR1) Antibodies

Cat. GALR11-S	Rabbit Anti-Mouse GALR1 (Antiserum #1)	SIZE: 100 ul
Cat. GALR11-A	Rabbit Anti- Mouse GALR1 (aff pure) Ig G# 1	SIZE: 100 ug
Cat. GALR11-P	Mouse GALR1 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 mediates its biological effects by interacting with high affinity cell surface G-protein coupled receptors (GALR1-3). **GALR1** (rat 346 aa; human 349 aa; chromosome 15q24; 55-70 kDa non-glycosylated and glycosylated forms) are 92% conserved between human and rat. GALR1 is expressed in small intestine, heart prostate, and several areas of the brain (ventral hippocampus, amygdala, supraoptic nucleus, hypothalamus, etc). GALR1 has high affinity for galanin (Kd=0.07 nM), N-terminal galanin fragments, and putative galanin receptor antagonists galantide, C7, M35, and M40. C-terminal galanin fragments do not bind to GALR1.

Source of Antigen and Antibodies

Antigen	22aa peptide of mouse GLAR1 (Gene Accession #P56479) Designated (GALR11-P or control peptide). conjugated to KLH ; epitope location ~ C-terminus, Cytoplasmic
Ab Host/type	Rabbit, polyclonal; Unpurified antiserum (cat #GALR11-S) Aff pure IgG1 (cat #GALR11-A)
2-ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

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 -200C 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 GALR11-P peptide sequence has high homology with human (90%) and rat (76%) GALR1. No significant homology of GALR11-P is seen with GLAR2, GALR3 or any other G-protein coupled receptors. Antibody cross-reactivity with GALR1 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: Wang S et al (1997) FEBS Lett. 411, 225-230, Parker EM et al (1995) Brain Res. Mol. Brain Res. 34, 179-189; Habert-Ortoli E et al (1994) PNAS 91, 9780-9783; Lorimer DD et al (1997) BBRC 241, 558-564; Jacoby AS et al (1997) Genomics 45, 496-508

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

Zhao C-M, 2007, Endocrinology in press, , IHC
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)

GALR11-S-A-P 71221A

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