

Product Specification Sheet

Mouse Galanin Receptor 3 (GALR3) Antibodies

Cat. GALR31-S	Rabbit Anti-Mouse GALR3 (Antiserum # 1)	SIZE: 100 ul
Cat. GALR31-A	Rabbit Anti- Mouse GALR3 (affinity pure) Ig G# 1	SIZE: 100 ug
Cat. GALR31-P	Mouse GALR3 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). Rat **GALR3** (human 368 aa) encodes a protein of 370 aa with 35% and 52% identity with GALR1 and GALR2. The rat and human GALR3 are ~90% conserved. Rat GALR3 is expressed in heart, spleen, and testes. Galanin binding to GALR3 can be displaced by galanin and galanin analogues. However, human galanin, galanin (1-16), and M40 show lower affinity to GALR3.

Source of Antigen and Antibodies

Antigen	20aa peptide of mouse GLAR3 (Gene Accession #Q88853) Designated (GALR31-P or control peptide), conjugated to KLH; epitope location ~ C-terminus, Cytoplasmic
Ab Host/type	Rabbit, polyclonal; Unpurified antiserum (cat #GALR31-S) Aff pure IgG1 (cat #GALR31-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 -20°C and powder at 4°C or -20°C..

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

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

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

Western Blot (1K:10K) for neat serum and 1-10 ug/ml for affinity pure antibodies.

Histochemistry & Immunofluorescence: We recommend the use of affinity purified antibody at 2-20 ug/ml.

Specificity & Cross-reactivity

Mouse GALR31-P peptide sequence has 100% homology with rat (100%) and human (80%) GALR3. No significant homology of GALR31-P is seen with GLAR1, GALR2 or any other G-protein coupled receptors. Antibody cross-reactivity with GALR3 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 # AF042783
Smith KE et al (1998) JBC 273, 2321-23326; Wang S et al (1997) JBC 272, 31949-31952; . Pharmacol. 52, 337-343; Fathi Z et al (1998) 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)

GALR31-S-A-P 71221A

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