

Product Specification Sheet

Galanin Antibodies

Cat. GAL51-S	Rabbit Anti-Human Galanin (Antisera # 1)	SIZE: 100 ul
Cat. GAL51-A	Rabbit Anti-Human Galanin (affinity pure) Ig G # 1	SIZE: 100 ug
Cat. GAL51-P	Human Galanin 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 receptors. Pharmacological studies with several peptide antagonists and antagonists of galanin receptor suggest the existence of multiple receptor subtypes, and three galanin receptors (GAL-R1, GAL-R2, and GAL-R3) have been clone thus far. These receptors belong to the family of G-protein coupled receptor superfamily, characterized by seven transmembrane domains.

Source of Antigen and Antibodies

and antibodies generated in rabbits. Control peptide (GAL51-P) was used to affinity purify the antibodies.

Antigen	Human galanin peptide sequence (designated GAL51-P) was coupled to KLH
Ab Host/type	Rabbit, Polyclonal antiserum # GAL51-S and IgG, purified over antigen-agarose (Cat # GAL51-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	Cat # 20009-1, Rabbit (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
Supplied 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

Human galanin is extremely conserved in mouse, rat, human and other species. The human GAL51-P peptide sequence has no significant homology with other neuropeptide. Antibody cross-reactivity with galanin from various species is not known. The appropriate control immunogenic peptide is available to confirm specificity of antibodies. 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: Tatemoto K et al (1983) FEBS Lett. 164, 124-128; Vrontakis ME et al (1987) J Biol. Chem. 272, 16755-16758 ; Rokaeus A and Carlquist M (1988) FEBS Lett. 234, 400-406; Bersani et al (1991) FEBS Lett. 283, 189-194; Sillard R et al (1991) Peptides 12, 855-859; Wang Y and Conlon JM (1994) Peptides 15, 981-986. Melander T et al (1986) J Comp. Neurol. 248, 475-517; Melander T et al (1986) Neuroscience 19, 223-240; Skofitch G and Jacobowitz DM et al (1986) Peptides 6, 509-546; ibid (1986) Peptides 7, 609-613; Kask K et al (1995) Cell Mol Neurobiol. 15, 653-674 (review).

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

Zhao C-M, 2007, Endocrinology in press, , IHC
*This product is for *in vitro* research use only.

Related material available from ADI

Anti-Galanin, Galanin receptors (1-3)
GAL51-S-A-P 71221A

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