

Product Specification Sheet

Human Galanin

Cat. GAL61-P Human Galanin peptide **SIZE:** 1 mg 5 mg 10 mg .100 mg

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

A 30-aa human galanin peptide sequence (GWT LNS AGY LLG PHA VGN HRS FSD KNG LTS, 30 AA, mol wt 3158; **designated GAL61-P**) was synthesized and purified by HPLC to >95% purity.

Form & Storage of Antibodies/Peptide Control

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).

Storage
Short-term: unopened, undiluted vials for less than a week at 4oC.
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

Western Blotting: 1-10 µg/ml; using affinity pure antibody (chemiluminescence technique).

ELISA: 1:100K; using 50-100 ng control peptide/well.

Histochemistry & Immunofluorescence: Not tested; we recommend the use of affinity purified antibody at 2-10 µg/ml.

Specificity & Cross-reactivity

Human galanin is extremely conserved in mouse, rat, human and other species. An antibody to human galanin (Cat# GAL51-S) is also available.

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).

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

Related material available from ADI

Anti-Galanin, Galanin receptors (1-3)

GAL61-P 71212J

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