



>>Entry Name: Galanin

Related CAS Registry Numbers(s): 119418-04-1 137527-90-3 154361-26-9 157143-54-9 158621-95-5

H-Gly-Trp-Thr-Leu-Asn-Ser-Ala-Gly-Tyr-Leu-Leu-Gly-Pro-His-Ala-Val-Gly-Asn-His-Arg-Ser-Phe-Ser-Asp-Lys-Asn-Gly-Leu-Thr-Ser-OH

General Statement: Struct. of human form shown

Biological Source: Biol. active neuropeptide found in central neurons of several mammalian species. First isol. from porcine small intestine

Biological Use/Importance: Effects contraction of smooth muscle of the gastrointestinal and genitourinary tracts, and regulates somatotropin release. Involved in control of adrenal secretion. Inhibits insulin release *in vivo*. Modulates cholinergic basal forebrain neurons; overexpression associated with cognitive dysfunction

>>Variant: Porcine galanin

CAS Registry Number: 88813-36-9

Molecular Formula: C₁₄₆H₂₁₃N₄₃O₄₀

Molecular Weight: 3210.553

Accurate Mass: 3208.595507

Percentage Composition: C 54.62%; H 6.69%; N 18.76%; O 19.93%

Optical Rotation: [α]_D²⁵ -61.2 (c, 0.1 in 0.5M AcOH)

Sigma: G1266

>>Variant: Rat galanin

Synonym(s): 23-Serine-26-histidine-29-threoninamidegalanin (rat), 9CI

CAS Registry Number: 114547-31-8

Molecular Formula: C₁₄₁H₂₁₁N₄₃O₄₁

Molecular Weight: 3164.481

Accurate Mass: 3162.574772

Percentage Composition: C 53.52%; H 6.72%; N 19.03%; O 20.73%

Physical Description: No phys. props. reported

Sigma: G8272

>>Variant: Ox galanin

Synonym(s): 16-Leucine-18-serine-23-glutamine-26-histidinegalanin (pig), 9CI

CAS Registry Number: 116980-05-3

Molecular Formula: C₁₄₁H₂₁₁N₄₃O₄₀

Molecular Weight: 3148.482

Accurate Mass: 3146.579857

Percentage Composition: C 53.79%; H 6.75%; N 19.13%; O 20.33%

Physical Description: No phys. props. reported

>>Variant: Human galanin

CAS Registry Number: 136024-41-4

Molecular Formula: C₁₃₉H₂₁₀N₄₂O₄₃

Molecular Weight: 3157.444

Accurate Mass: 3155.553703

Percentage Composition: C 52.88%; H 6.70%; N 18.63%; O 21.79%

General Statement: Lacks C-terminal amidation found in other spp.

References:

- Tatemoto, K. *et al.*, *FEBS Lett.*, 1983, **164**, 124, (*isol, struct*)
Yajima, H. *et al.*, *Chem. Pharm. Bull.*, 1986, **34**, 528, (*synth*)
Yanaihara, N. *et al.*, *Pept. Chem.*, 1987, **26**, 487, (*synth*)
Roekaeus, A. *et al.*, *Trends Neurosci.*, 1987, **10**, 158, (*rev*)
Tatemoto, K., *Adv. Metab. Disord.*, 1988, **11**, 421, (*rev*)
Dunning, B.E. *et al.*, *Diabetes*, 1988, **37**, 1157, (*props*)
Roekaeus, A. *et al.*, *FEBS Lett.*, 1988, **234**, 400, (*ox*)
Kaplan, L.M. *et al.*, *Proc. Natl. Acad. Sci. U.S.A.*, 1988, **85**, 1065, (*rat*)
Evans, H.F. *et al.*, *Endocrinology (Baltimore)*, 1991, **129**, 1682-1684, (*human form, struct*)
Bartfai, T. *et al.*, *Crit. Rev. Neurobiol.*, 1993, **7**, 229-274, (*rev*)
Rekowski, P. *et al.*, *Pol. J. Chem. (Rocz. Chem.)*, 1993, **67**, 237, (*synth*)
Wennerberg, A.B.A. *et al.*, *Can. J. Chem.*, 1994, **72**, 1495, (*ir, conformn*)
Ann. N.Y. Acad. Sci., 1998, **863**, 1-464, (*rev*)