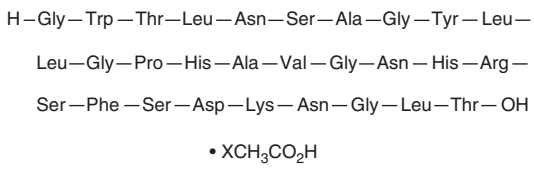
PRODUCT INFORMATION

Galanin (human) (acetate)

Item No. 33139

Formal Name: glycyl-L-tryptophyl-L-threonyl-L-leucyl-L-asparaginyl-L-seryl-L-alanylglycyl-L-tyrosyl-L-leucyl-L-leucylglycyl-L-prolyl-L-histidyl-L-alanyl-L-valylglycyl-L-asparaginyl-L-histidyl-L-arginyl-L-seryl-L-phenylalanyl-L-seryl-L-α-aspartyl-L-lysyl-L-asparaginylglycyl-L-leucyl-L-threonyl-L-serine, acetate



Synonyms:	GAL (human), Galanin (1-30)
MF:	$C_{139}H_{210}N_{42}O_{43} \bullet XC_2H_4O_2$
FW:	3,157.4
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Galanin (human) (acetate) is supplied as a solid. A stock solution may be made by dissolving the galanin (human) (acetate) in water. The solubility of galanin (human) (acetate) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Human galanin is a 30-amino acid neuropeptide and galanin (GAL) receptor agonist.[1-4] It inhibits forskolin-induced cAMP production in HEK293E cells expressing recombinant human GAL_1 receptors (EC_{50} = 0.031 nM) and stimulates inositol phosphate accumulation in CHO cells expressing recombinant human GAL_2 receptors (EC_{50} = 12.3 nM).[1,2] Human galanin induces contractions in isolated rat longitudinal fundus strips with an EC_{50} value of 13.8 nM.[3] Intrathecal administration of human galanin (3, 10, and 30 nmol/animal) reduces paw licking and flinching in the second, but not first, phase of the formalin test in rats.[4]

References

1. Fitzgerald, L.W., Patterson, J.P., Conklin, D.S., *et al.* Pharmacological and biochemical characterization of a recombinant human galanin GALR1 receptor: Agonist character of chimeric galanin peptides. *J. Pharmacol. Exp. Ther.* **287(2)**, 448-456 (1998).
2. Borowsky, B., Walker, M.W., Huang, L.Y., *et al.* Cloning and characterization of the human galanin GALR2 receptor. *Peptides* **19(10)**, 1771-1781 (1998).
3. Schmidt, W.E., Kratzin, H., Eckart, K., *et al.* Isolation and primary structure of pituitary human galanin, a 30-residue nonamidated neuropeptide. *Proc. Natl. Acad. Sci. USA* **88(24)**, 11435-11439 (1991).
4. Hua, X.-Y., Hayes, C.S., Hofer, A., *et al.* Galanin acts at GalR1 receptors in spinal antinociception: Synergy with morphine and AP-5. J. *Pharmacol. Exp. Ther.* **308(2)**, 574-582 (2004).

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