

PRODUCT INFORMATION

Spexin 1 (human, mouse, rat, bovine) (acetate)

Item No. 36866

Formal Name:	L-asparaginy-L-tryptophyl-L-threonyl-L-prolyl-L-glutaminy-L-alanyl-L-methionyl-L-leucyl-L-tyrosyl-L-leucyl-L-lysylglycyl-L-alanyl-L-glutamamide, acetate	
Synonyms:	Neuropeptide Q, NPQ, NWTPQAMLYLKGAQ-NH ₂ , SPX1	H-Asn-Trp-Thr-Pro-Gln-Ala-Met-Leu-Tyr-Leu-Lys-Gly-Ala-Gln-NH ₂
MF:	C ₇₄ H ₁₁₄ N ₂₀ O ₁₉ S • XC ₂ H ₄ O ₂	• XCH ₃ CO ₂ H
FW:	1,619.9	
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

Spexin 1 (human, mouse, rat, bovine) (acetate) is supplied as a solid. A stock solution may be made by dissolving the spexin 1 (human, mouse, rat, bovine) (acetate) in water. We do not recommend storing the aqueous solution for more than one day.

Description

Spexin 1 is an endogenous peptide and agonist of galanin-2 receptor (GAL₂) and GAL₃.¹ It selectively activates GAL₂ and GAL₃ over GAL₁ in HEK293 cells expressing the human receptors and Gα_{qi} (EC₅₀s = 0.161, 0.626, and >10 μM, respectively, in reporter assays). Spexin 1 (50 μg/kg) decreases body weight, fat mass, serum triglyceride levels, and blood glucose and insulin levels in a mouse model of high-fat diet-induced hepatic steatosis.² Intracerebroventricular administration of spexin 1 (30 nmol/animal) decreases heart rate and urine flow rate, increases mean arterial pressure (MAP) and urinary sodium excretion, and has antinociceptive activity in the warm water tail withdrawal test in rats.³

References

- Kim, D.-K., Yun, S., Son, G.H., *et al.* Coevolution of the spexin/galanin/kisspeptin family: Spexin activates galanin receptor type II and III. *Endocrinology* **155**(5), 1864-1873 (2014).
- Wang, M., Zhu, Z., Kan, Y., *et al.* Treatment with spexin mitigates diet-induced hepatic steatosis in vivo and in vitro through activation of galanin receptor 2 *Mol. Cell Endocrinol.* **552**, 111688 (2022).
- Toll, L., Khroyan, T.V., Sonmez, K., *et al.* Peptides derived from the prohormone proNPQ/spexin are potent central modulators of cardiovascular and renal function and nociception. *FASEB J.* **26**(2), 947-954 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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