

PRODUCT INFORMATION



Neuropeptide S (rat)

Item No. 24148

CAS Registry No.: 412938-75-1

Formal Name: L-seryl-L-phenylalanyl-L-arginyl-L-asparaginylglycyl-L-valylglycyl-L-serylglycyl-L-valyl-L-lysyl-L-lysyl-L-threonyl-L-seryl-L-phenylalanyl-L-arginyl-L-arginyl-L-alanyl-L-lysyl-L-glutamine

H—Ser—Phe—Arg—Asn—Gly—Val—Gly—Ser—Gly—Val—

Lys—Lys—Thr—Ser—Phe—Arg—Arg—Ala—Lys—Gln—OH

Synonym: NPS

MF: $C_{95}H_{160}N_{34}O_{27}$

FW: 2,210.5

Purity: ≥95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥4 years

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

Laboratory Procedures

Neuropeptide S (rat) is supplied as a lyophilized powder. A stock solution may be made by dissolving the neuropeptide S (rat) in water. The solubility of neuropeptide S (rat) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Neuropeptide S is a neuropeptide that is an agonist of the neuropeptide S receptor (NPSR) with an EC_{50} value of 3.2 nM for the rat peptide to induce intracellular calcium mobilization in HEK293 cells expressing the human receptor.¹ In rats, it increases the duration of wakefulness and decreases slow wave sleep stage 1 (SWS1), SWS2, and rapid eye movement (REM). Neuropeptide S dose-dependently (0.5-4 nmol per animal, i.c.v.) decreases fecal pellet excretion induced by restraint stress or corticotropin releasing factor (CRF) but does not influence basal gastric emptying, gastrointestinal transit, or distal colon propulsion.² It also inhibits audible and ultrasonic vocalizations and increases the percentage of time spent in the open arm of the elevated plus maze test in a mouse model of arthritis.³

References

1. Xu, Y.-L., Reinscheid, R.K., Huitron-Resendiz, S., *et al.* Neuropeptide S: A neuropeptide promoting arousal and anxiolytic-like effects. *Neuron* **43**(4), 487-497 (2004).
2. Petrella, C., Agostini, S., Guerrini, R., *et al.* Neuropeptide S inhibits stress-stimulated faecal output in the rat. *Pharmacol. Res.* **64**(5), 471-477 (2011).
3. Medina, G., Ji, G., Grégoire, S., *et al.* Nasal application of neuropeptide S inhibits arthritis pain-related behaviors through an action in the amygdala. *Mol. Pain* **10**:32, (2014).

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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