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**Product Data Sheet**

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Product Name: Neuropeptide S (rat)

Cat. No.: GC18277

**Chemical Properties**

Cas. No. 412938-75-1

Chemical Name L-seryl-L-phenylalanyl-L-arginyl-L-asparaginyglycyl-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

SMILES N/A

Formula C<sub>95</sub>H<sub>160</sub>N<sub>34</sub>O<sub>27</sub> M.Wt 2210.5

Solubility Water: 1 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Neuropeptide S is a neuropeptide that is an agonist of the neuropeptide S receptor (NPSR) with an EC<sub>50</sub> value of 3.2 nM for the rat peptide to induce intracellular calcium mobilization in HEK293 cells expressing the human receptor. 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. 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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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