Neuropeptide S (human)

Cat. No.:	HY-P1389
CAS No.:	412938-67-1
Molecular Formula:	$C_{93}H_{155}N_{31}O_{28}S$
Molecular Weight:	2187.5
Sequence:	Ser-Phe-Arg-Asn-Gly-Val-Gly-Thr-Gly-Met-Lys-Lys-Thr-Ser-Phe-Gln-Arg-Ala-Lys-Ser
Sequence Shortening:	SFRNGVGTGMKKTSFQRAKS
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

BIOLOGICAL ACTIVITY

Description	Neuropeptide S human, a neuropeptide, is a potent cognate neuropeptide S receptor (NPSR) agonist. Neuropeptide S human can be used for Alzheimer's disease (AD) research[1].
IC_{50} & Target	EC50: 9.4 nM (neuropeptide S receptor)[1]
In Vitro	Half-maximal effective concentrations (EC_{50}) for mobilization of $[Ca^{2+}]_i$ are 9.4 nM, 3.2 nM, and 3.0 nM for human, rat, and mouse Neuropeptide S (NPS), respectively[1]. Neuropeptide S human (4 pM to 1.7 nM; 48 hours) retains full agonist activity with an EC_{50} of 6.7 nM, the binding of [^{125}I] Y10-hNPS to CHO cells stably expressing hNPSR is saturable with high affinity (K_d = 0.33 nM)[1]. Neuropeptide S human (1 pM-3 μM; 48 hours) are used to compete with 0.15 nM [^{125}I] Y10-NPS, [^{125}I] Y10-NPS is displaceable by increasing concentrations of human NPS (IC_{50} = 0.42 nM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Neuropeptide S human (0.1 nM-1 nM; i.c.v.) causes a significant increase in locomotor activity, the total distance traveled, percentage of time moving, number of rearing events, and center entries are also significantly increased in mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male C57Bl/6 mice[1]
Dosage:	0.1 nM, 1 nM
Administration:	Intracerebroventricular (i.c.v.) injection
Result:	Increased locomotor activity and promoted wakefulness.

REFERENCES

[1]. Xu YL, et al. Neuropeptide S: a neuropeptide promoting arousal and anxiolytic-like effects.Neuron. 2004 Aug 19;43(4):487-97.

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