Neuropeptide W-23 (human)

Cat. No.:	HY-P1035
CAS No.:	383415-79-0
Molecular Formula:	$C_{119}H_{183}N_{35}O_{28}S$
Molecular Weight:	2584.01
Sequence:	Trp-Tyr-Lys-His-Val-Ala-Ser-Pro-Arg-Tyr-His-Thr-Val-Gly-Arg-Ala-Ala-Gly-Leu-Leu-Met-Gly-Leu
Sequence Shortening:	WYKHVASPRYHTVGRAAGLLMGL
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

BIOLOGICAL ACTIVITY

Description	Neuropeptide W-23 (human) (NPW-23), the active form of Neuropeptide W, is an endogenous agonist of NPBW1 (GPR7) and NPBW2 (GPR8)[1].
IC_{50} & Target	NPBW1, NPBW2[1]
In Vitro	Neuropeptide W-23 (human) (NPW-23) increases the $I_{Ca,L}$ in transfected human embryonic kidney 293 cells and VSMCs via GPR7[1]. Neuropeptide W-23 (human) increases the expression of pan phospho-PKC, intracellular diacylglycerol level, and the second messenger catalyzed by PLC[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Neuropeptide W-23 (human) (NPW-23) (0.3-3.0 nM; intracerebroventricular injection; 2 μL) increases total behavioral activity, including locomotion and grooming in conscious rats[2]. Neuropeptide W-23 (human) (NPW-23) (2-8 nM; i.c.v.; 10 μL) shows anorexigenic effect in rats[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Harlan Sprague-Dawley rats, 250–300 g[2]
Dosage:	0.3, 1.0 and 3.0 nM
Administration:	Intracerebroventricular injection, 2 μL
Result:	Caused significant increases in mean arterial pressure. Demonstrated a significant increase in total activity, ambulatory activity, and duration of stereotypy.

Animal Model:	Male Wistar rats weighing 250–300 g[3]

Dosage:	2, 4, 6 and 8 nM
Administration:	Intra-cerebroventricular injection, 10 μL
Result:	Decreased dark feeding and fasting-induced feeding, decreased feeding intake and weight gain.

REFERENCES

[1]. Naso T, et al. Central neuropeptide W has anorexigenic effect in rats. J Anim Physiol Anim Nutr (Berl). 2014 Apr;98(2):228-34.

[2]. Ji L, et al. Modulation of CaV1.2 calcium channel by neuropeptide W regulates vascular myogenic tone via G protein-coupled receptor 7. J Hypertens. 2015 Dec;33(12):2431-42.

[3]. Pate AT, et al. Neuropeptide W increases mean arterial pressure as a result of behavioral arousal. Am J Physiol Regul Integr Comp Physiol. 2013 Oct 1;305(7):R804-10.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA