# Neuropeptide W-23 (human) (TFA)

| | |
|---|---|
| **Cat. No.:** | HY-P1035A |
| **Molecular Formula:** | $C_{119}H_{183}N_{35}O_{28}S.C_2HF_3O_2$ |
| **Molecular Weight:** | 2698.03 |
| **Sequence:** | Trp-Tyr-Lys-His-Val-Ala-Ser-Pro-Arg-Tyr-His-Thr-Val-Gly-Arg-Ala-Ala-Gly-Leu-LeuMet-Gly-Leu |
| **Sequence Shortening:** | WYKHVASPRYHTVGRAAGLLMGL |
| **Target:** | Others |
| **Pathway:** | Others |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |

## BIOLOGICAL ACTIVITY

| | |
|---|---|
| **Description** | Neuropeptide W-23 (human) (NPW-23) TFA, 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].<br>Neuropeptide W-23 (human) increases the expression of pan phospho-PKC, intracellular diacylglycerol level, and the second messenger catalyzed by PLC[1].<br>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].<br>Neuropeptide W-23 (human) (NPW-23) (2-8 nM; i.c.v.; 10 μL) shows anorexigenic effect in rats[3].<br>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]. 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.

[2]. 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.

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





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