Product Data Sheet

Product Name: Orexin A- 13 C 18 , 15 N 3 (human, rat, mouse) TFA
Cat. No.: GC80839

Chemical Properties

Cas. No.			
Formula	$C_{13413}C_{18}H_{243}N_{4415}N_3O_{44}S_4 \cdot xC_2HF_3O_2$	M.Wt	3581.95
Solubility		Storage	Sealed storage, away from moisture
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			

{Glp}-Pro-{Leu-13C_6,15N}-Pro-Asp-Cys-Cys-Arg-Gln-Lys-Thr-Cys-Ser-Cys-Arg-{Leu-13C_6,15N}-Tyr-Glu-{Leu-13C_6,15N}-Leu-His-Gly-Ala-Gly-Asn-His-Ala-Ala-Gly-Ile-Leu-Thr-Leu-NH_2
(Disulfide bridge: Cys_6-Cys_{12}, Cys_7-Cys_{14}) (TFA salt)

Background

Orexin A- 13 C 18, 15 N 3 (human, rat, mouse) ((Hypocretin-1- 13 C 18, 15 N 3 (human, rat, mouse)) TFA is the 13 C- and 15 N-labeled Orexin A (human, rat, mouse). Orexin A (human, rat, mouse) (Hypocretin-1 (human, rat, mouse)), a 33 amino acid excitatory neuropeptide, orchestrates diverse central and peripheral processes. Orexin A (human, rat, mouse) binds and activates two types of G protein-coupled receptors, the orexin-1 receptor (OX1R) and the orexin-2 receptor (OX2R). Orexin A (human, rat, mouse) has a role in the regulation of feeding behavior. Orexin A (human, rat, mouse) is an effective anti-nociceptive and anti-hyperalgesic agent in mice and rats [1] [2].

Caution: Product has not been fully validated for medical applications. For research use only.
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In Vitro, Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs.

References:

[1]. Sakurai T, et al. Orexins and orexin receptors: a family of hypothalamic neuropeptides and G protein-coupled receptors that regulate feeding behavior. Cell. 1998 Feb 20;92(4):573-85.
[2]. Bingham S, et al. Orexin-A, an hypothalamic peptide with analgesic properties. Pain. 2001 May;92(1-2):81-90.

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