[Leu31,Pro34]-Neuropeptide Y(human,rat,mouse) TFA

Cat. No.: HY-P1323A

Molecular Formula: $C_{191}H_{285}F_3N_{54}O_{58}S$

Molecular Weight: 4354.76

Sequence: Tyr-Pro-Ser-Lys-Pro-Asp-Asn-Pro-Gly-Glu-Asp-Ala-Pro-Ala-Glu-Asp-Met-Ala-Arg-Tyr-Tyr-Ser-Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu-Leu-Thr-Arg-Pro-Arg-Tyr-NH2

Sequence Shortening: YPSKPDNPGEDAPAEDMARYYSALRHYINLLTRPRY-NH2

Tyr-Pro-Ser-Lys-Pro-Asp-Asn-Pro-Gly-Glu-Asp-Ala-Pro-Ala-Glu-Asp-Met-Ala-Arg-Tyr-Tyr-Ser-Ala-Leu-Arg-His-Tyr-Ile-Asn-Leu-Leu-Thr-Arg-Pro-Arg-Tyr-NH_2 (TFA salt)

Target: Neuropeptide Y Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (11.48 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.2296 mL	1.1482 mL	2.2963 mL
	5 mM	0.0459 mL	0.2296 mL	0.4593 mL
	10 mM	0.0230 mL	0.1148 mL	0.2296 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

[Leu31,Pro34]-Neuropeptide Y(human,rat) TFA is a specific neuropeptide Y Y_1 receptor agonist. [Leu31,Pro34]-Neuropeptide Y(human,rat) TFA slao activates Y_4, Y_5. [Leu31,Pro34]-Neuropeptide Y(human,rat) TFA can increase blood pressure in anesthetized rats and increases food intake[1][2].

IC_{50} & Target	NPY Y_1 receptor	NPY Y_4 receptor	NPY Y_5 receptor

In Vitro

[Leu31,Pro34]-Neuropeptide Y(human,rat) TFA has K_i values of 0.39 nM, 0.499 nM, 0.31 nM for Y_1, Y_4, Y_5 in HEK cell lines. [Leu31,Pro34]-Neuropeptide Y(human,rat) TFA has a K_i of >1000 for Y_2 in HEK cell lines[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

[Leu31,Pro34]-Neuropeptide Y(human,rat) TFA (30 pmol; microinjected into paraventricular nucleus) increases food intake in the rats (350±400 g)[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Headache Pain. 2023 May 25;24(1):61.

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REFERENCES

[1]. K McCrea, et al. 2-36[K4,RYYSA(19-23)]PP a novel Y_5-receptor preferring ligand with strong stimulatory effect on food intake. Regul Pept. 2000 Feb 8;87(1-3):47-58.

[2]. J Fuhlendorff, et al. [Leu31, Pro34]neuropeptide Y: a specific Y_1 receptor agonist. Proc Natl Acad Sci U S A. 1990 Jan;87(1):182-6.

[3]. A Kask, et al. Evidence for involvement of neuropeptide Y receptors in the regulation of food intake: studies with Y_1-selective antagonist BIBP3226. Br J Pharmacol. 1998 Aug;124(7):1507-15.

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