α-CGRP (mouse, rat) (TFA)

Cat. No.: HY-P0203A

Molecular Formula: $C_{162}H_{262}N_{50}O_{52}S_2.C_2HF_3O_2$

Molecular Weight: 3920.27

Sequence Shortening: SCNTATCVTHRLAGLLSRSGGVVKDNFVPTNVGSEAF-NH2 (Disulfide bridge:Cys2-Cys7)

SCNTATCVTHRLAGLLSRSGGVVKDNFVPTNVGSEAF-NH_2
(Disulfide bridge:Cys2-Cys7) (TFA salt)

Target: CGRP 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 : 25 mg/mL (6.38 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.2551 mL	1.2754 mL	2.5508 mL
5 mM	0.0510 mL	0.2551 mL	0.5102 mL
10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

α-CGRP (mouse, rat) TFA, a neuropeptide (calcitonin gene-related peptide (CGRP)) mainly expressed in neuromuscular junction, is a potent vasodilator. α-CGRP (mouse, rat) TFA can lead to a fall in blood pressure and an increase in heart rate by peripheral administration, also relax colonie smooth muscle. α-CGRP (mouse, rat) TFA has the potential in cardiovascular, pro-inflammatory, migraine and metabolic studies[1][2][3][4].

In Vitro

α-CGRP (mouse, rat) TFA can regulate the innate lymphoid cell response in 2 groups[1].

α-CGRP (mouse, rat) TFA regulates insulin secretion and reduces the risk of type 2 diabetes[2].

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

In Vivo

α-CGRP (mouse, rat) TFA (0.25, 0.5, 1 μg/kg/min, intravenous) dose-dependent decreases mean arterial blood pressure, while heart rate and systemic vascular conduction increased, while cardiac output remained unchanged[3].

α-CGRP (mouse, rat) TFA plays an important role in the regulation of Kainic acid (KA) induced pyramid-cell death in hippocampal CA3 region[4].

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REFERENCES

[1]. Whitby K, et al. Castanospermine, a potent inhibitor of dengue virus infection in vitro and in vivo. J Virol. 2005 Jul;79(14):8698-706.

[2]. Xu H, et al. Transcriptional Atlas of Intestinal Immune Cells Reveals that Neuropeptide α-CGRP Modulates Group 2 Innate Lymphoid Cell Responses. Immunity. 2019 Oct 15;51(4):696-708.e9.

[3]. Arulmani U, et al. Effects of the calcitonin gene-related peptide (CGRP) receptor antagonist BIBN4096BS on alpha-CGRP-induced regional haemodynamic changes in anaesthetised rats. Basic Clin Pharmacol Toxicol. 2004 Jun;94(6):291-7.

[4]. Park SH, et al. Role of α-CGRP in the regulation of neurotoxic responses induced by kainic acid in mice. Peptides. 2013 Jun;44:158-62.

Caution: Product has not been fully validated for medical applications. For research use only.

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