β-CGRP, human TFA

Cat. No.: HY-P1548A

Molecular Formula: $C_{164}H_{268}F_3N_{51}O_{50}S_3$

Molecular Weight: 3907.38

Sequence: Ala-Cys-Asn-Thr-Ala-Thr-Cys-Val-Thr-His-Arg-Leu-Ala-Gly-Leu-Leu-Ser-Arg-Ser-Gly-Gly-Met-Val-Lys-Ser-Asn-Phe-Val-Pro-Thr-Asn-Val-Gly-Ser-Lys-Ala-Phe-NH2(Disulfide bridge: Cys2-Cys7)

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

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

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 (6.40 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.2559 mL	1.2796 mL	2.5593 mL
	5 mM	0.0512 mL	0.2559 mL	0.5119 mL
	10 mM	---	---	---

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (12.80 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

β-CGRP, human TFA (Human β-CGRP TFA) is one of calcitonin peptides, acts via the complex of calcitonin-receptor-like receptor (CRLR) and receptor-activity-modifying protein (RAMP), with IC_{50}s of 1 nM and 300 nM for CRLR/RAMP1 and CRLR/RAMP2 in cells[1].

IC_{50} & Target

IC50: 1 nM (CRLR/RAMP1, cell assay), 300 nM (CRLR/RAMP2, cell assay)[1]

In Vitro

β-CGRP, human is one of calcitonin peptides, acts via complex of calcitonin-receptor-like receptor (CRLR) and receptor-activity-modifying protein (RAMP), with IC_{50}s of 1 nM in both SK-N-MC and Swiss 3T3 cells express CRLR and RAMP1, and 130 nM and 300 nM in NG108-15 and HEK293T cells expressing CRLR and RAMP2[1]. CGRP is a potent vasodilator and also shows

pro- and -anti-inflammatory activity[2].

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

REFERENCES

[1]. McLatchie LM, et al. RAMPs regulate the transport and ligand specificity of the calcitonin-receptor-like receptor. Nature. 1998 May 28;393(6683):333-9.

[2]. Russell FA, et al. Calcitonin gene-related peptide: physiology and pathophysiology. Physiol Rev. 2014 Oct;94(4):1099-142.

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