

## $\alpha$ -CGRP (mouse, rat) (TFA)

<b>Cat. No.:</b>	HY-P0203A	
<b>Molecular Formula:</b>	C <sub>162</sub> H <sub>262</sub> N <sub>50</sub> O <sub>52</sub> S <sub>2</sub> C <sub>2</sub> HF <sub>3</sub> O <sub>2</sub>	
<b>Molecular Weight:</b>	3920.27	
<b>Sequence Shortening:</b>	SCNTATCVTHRLAGLLSRGGVWKDNFVPTNVGSEAF-NH <sub>2</sub> (Disulfide bridge:Cys2-Cys7)	SCNTATCVTHRLAGLLSRGGVWKDNFVPTNVGSEAF-NH <sub>2</sub> (Disulfide bridge:Cys2-Cys7) (TFA salt)
<b>Target:</b>	CGRP Receptor	
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling	
<b>Storage:</b>	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

<b>In Vitro</b>	H <sub>2</sub> O : 25 mg/mL (6.38 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
			1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	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

<b>Description</b>	$\alpha$ -CGRP (mouse, rat) TFA, a neuropeptide (calcitonin gene-related peptide (CGRP)) mainly expressed in neuromuscular junction, is a potent vasodilator. $\alpha$ -CGRP (mouse, rat) TFA can lead to a fall in blood pressure and an increase in heart rate by peripheral administration, also relax colonic smooth muscle. $\alpha$ -CGRP (mouse, rat) TFA has the potential in cardiovascular, pro-inflammatory, migraine and metabolic studies <sup>[1][2][3][4]</sup> .
<b>In Vitro</b>	$\alpha$ -CGRP (mouse, rat) TFA can regulate the innate lymphoid cell response in 2 groups <sup>[1]</sup> . $\alpha$ -CGRP (mouse, rat) TFA regulates insulin secretion and reduces the risk of type 2 diabetes <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	$\alpha$ -CGRP (mouse, rat) TFA (0.25, 0.5, 1 $\mu$ g/kg/min, intravenous) dose-dependent decreases mean arterial blood pressure, while heart rate and systemic vascular conduction increased, while cardiac output remained unchanged <sup>[3]</sup> . $\alpha$ -CGRP (mouse, rat) TFA plays an important role in the regulation of Kainic acid (KA) induced pyramid-cell death in hippocampal CA3 region <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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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  $\alpha$ -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  $\alpha$ -CGRP in the regulation of neurotoxic responses induced by kainic acid in mice. *Peptides*. 2013 Jun;44:158-62.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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