

[Tyr22] Calcitonin Gene Related Peptide, (22-37), rat

Cat. No.:	HY-P3689
CAS No.:	198277-54-2
Molecular Formula:	C ₈₂ H ₁₂₀ N ₂₀ O ₂₅
Molecular Weight:	1786
Sequence:	Tyr-Val-Lys-Asp-Asn-Phe-Val-Pro-Thr-Asn-Val-Gly-Ser-Glu-Ala-Phe-NH ₂
Sequence Shortening:	YVKDNFVPTNVGSEAF-NH ₂
Target:	CGRP Receptor; Adenylate Cyclase
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year

YVKDNFVPTNVGSEAF-NH₂

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (55.99 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		0.5599 mL	2.7996 mL	5.5991 mL
	5 mM		0.1120 mL	0.5599 mL	1.1198 mL
	10 mM		0.0560 mL	0.2800 mL	0.5599 mL

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

BIOLOGICAL ACTIVITY

Description

[Tyr22] Calcitonin Gene Related Peptide, (22-37), rat is a fragments 22-37 of rat calcitonin gene related peptide (CGRP), targeting CGRP receptor and adenylate cyclase. Calcitonin is mainly produced by thyroid C cells while CGRP is secreted and stored in the nervous system^[1].

In Vitro

Calcitonin Gene Related Peptide (CGRP) in humans, exists in two forms: CGRP alpha (α -CGRP or CGRP I), and CGRP beta (β -CGRP or CGRP II)^[2].

[Tyr22] Calcitonin Gene Related Peptide, (22-37), rat shows the receptor binding affinity mainly depending on the carboxyterminal end while the ability to stimulate adenylate cyclase (AC) enzyme mainly depending on the aminoterminal end^[3].

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

REFERENCES

- [1]. Jia S, et al. Calcitonin gene-related peptide enhances osteogenic differentiation and recruitment of bone marrow mesenchymal stem cells in rats. *Exp Ther Med*. 2019 Aug;18(2):1039-1046.
- [2]. Russell FA, et al. Calcitonin gene-related peptide: physiology and pathophysiology. *Physiol Rev*. 2014 Oct;94(4):1099-142.
- [3]. Heino P, et al. Binding of CGRP analogs and their effect on adenylate cyclase activity in porcine iris-ciliary body. *J Ocul Pharmacol Ther*. 1998 Dec;14(6):543-54.
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Caution: Product has not been fully validated for medical applications. For research use only.

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