

Cortistatin-14 TFA

Cat. No.:	HY-P1932A
Molecular Formula:	C ₈₃ H ₁₁₅ F ₃ N ₂₀ O ₂₀ S ₂
Molecular Weight:	1834.05
Sequence:	Pro-Cys-Lys-Asn-Phe-Phe-Trp-Lys-Thr-Phe-Ser-Ser-Cys-Lys-NH ₂ (Disulfide bridge: Cys 2-Cys13) <small>PCKNFFWKTFSSCK-NH₂ (Disulfide bridge: Cys2-Cys13) (TFA salt)</small>
Sequence Shortening:	PCKNFFWKTFSSCK-NH ₂ (Disulfide bridge: Cys2-Cys13)
Target:	Somatostatin 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 ₂ O : 50 mg/mL (27.26 mM); Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		0.5452 mL	2.7262 mL	5.4524 mL
		5 mM		0.1090 mL	0.5452 mL	1.0905 mL
		10 mM		0.0545 mL	0.2726 mL	0.5452 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (54.52 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Cortistatin-14 (TFA), a neuropeptide have structural similarity to somatostatin-14, binds and exerts its function via the somatostatin receptors (sst1-sst5). Cortistatin-14 (TFA) shows anticonvulsive, neuroprotective effect and remarkable anti-inflammatory properties ^{[1][2][3][4]} .
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REFERENCES

- [1]. De Lecea L, et al. A cortical neuropeptide with neuronal depressant and sleep-modulating properties. *Nature*. 1996 May 16;381(6579):242-5.
- [2]. Baranowska B, et al. Cortistatin and pituitary hormone secretion in rat. *J Physiol Pharmacol*. 2009 Mar;60(1):151-6.

[3]. Braun H, et al. Protective effects of cortistatin (CST-14) against kainate-induced neurotoxicity in rat brain. Brain Res. 1998 Aug 24;803(1-2):54-60.

[4]. Markovics A, et al. Comparison of the anti-inflammatory and anti-nociceptive effects of cortistatin-14 and somatostatin-14 in distinct in vitro and in vivo model systems. J Mol Neurosci. 2012 Jan;46(1):40-50.

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

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