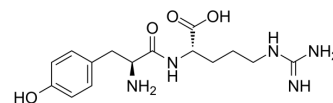


Kyotorphin

Cat. No.:	HY-122381
CAS No.:	70904-56-2
Molecular Formula:	C ₁₅ H ₂₃ N ₅ O ₄
Molecular Weight:	337.37
Target:	Bacterial; Endogenous Metabolite
Pathway:	Anti-infection; Metabolic Enzyme/Protease
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

DMSO : 125 mg/mL (370.51 mM; Need ultrasonic)
 H₂O : 100 mg/mL (296.41 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.9641 mL	14.8205 mL	29.6410 mL
	5 mM	0.5928 mL	2.9641 mL	5.9282 mL
	10 mM	0.2964 mL	1.4821 mL	2.9641 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 25 mg/mL (74.10 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (6.17 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (6.17 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (6.17 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Kyotorphin is an endogenous neuroactive dipeptide with analgesic properties. Kyotorphin possesses anti-inflammatory and antimicrobial activity. Kyotorphin levels in cerebro-spinal fluid correlate negatively with the progression of neurodegeneration in Alzheimer's Disease patients^[1].

IC ₅₀ & Target	Human Endogenous Metabolite
In Vitro	The analgesic effect of kyotorphin is determined by means of the hot-plate test, with an ED50 value of 5.3 µg/animal (15.7 nmole/animal) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Takagi H, et al. Morphine-like analgesia by a new dipeptide, L-tyrosyl-L-arginine (Kyotorphin) and its analogue. Eur J Pharmacol. 1979;55(1):109-111.

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

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