Kyotorphin

Cat. No.: HY-122381

CAS No.: 70904-56-2

Molecular Formula: $C_{15}H_{23}N_5O_4$

Molecular Weight: 337.37

Target: Bacterial; Endogenous Metabolite

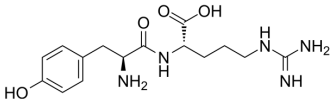
Pathway: Anti-infection; Metabolic Enzyme/Protease

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)

H_2O : 100 mg/mL (296.41 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	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

1. Add each solvent one by one: PBS
   Solubility: 25 mg/mL (74.10 mM); Clear solution; Need ultrasonic
2. 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
3. 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
4. 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 endogenou 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA