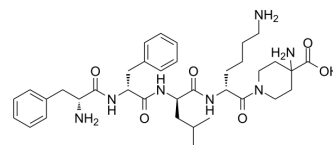


Difelikefalin

Cat. No.: HY-17609
CAS No.: 1024828-77-0
Molecular Formula: C₃₆H₅₃N₇O₆
Molecular Weight: 679.85
Target: Opioid 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

DMSO : 100 mg/mL (147.09 mM; Need ultrasonic)
 H₂O : ≥ 100 mg/mL (147.09 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.4709 mL	7.3546 mL	14.7091 mL
	5 mM		0.2942 mL	1.4709 mL	2.9418 mL
	10 mM		0.1471 mL	0.7355 mL	1.4709 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (3.68 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (3.68 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (3.68 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Difelikefalin (CR-845; FE-202845) is a peripherally restricted and selective agonist of kappa opioid receptor (KOR). Difelikefalin produces anti-inflammatory effects and has the potential in modulating pruritus in conditions such as chronic kidney disease^{[1][2]}.

IC₅₀ & Target

kappa opioid receptor (KOR)^[1]

In Vitro

Difelikefalin (CR-845; FE-202845) does not penetrate the blood-brain barrier. Difelikefalin does not bind to mu opioid receptors or any other receptors beside KORs^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Steven Fishbane, et al. Randomized Controlled Trial of Difelikefalin for Chronic Pruritus in Hemodialysis Patients. *Kidney Int Rep.* 2020 Jan 28;5(5):600-610.
- [2]. Steven Fishbane, et al. A Phase 3 Trial of Difelikefalin in Hemodialysis Patients With Pruritus. *N Engl J Med.* 2020 Jan 16;382(3):222-232.
-

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

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