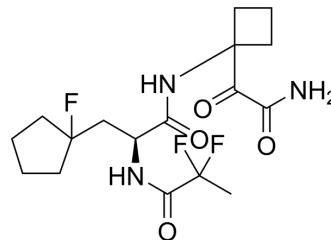


MIV-247

Cat. No.:	HY-112583
CAS No.:	1352817-76-5
Molecular Formula:	C ₁₇ H ₂₄ F ₃ N ₃ O ₄
Molecular Weight:	391.39
Target:	Cathepsin
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MIV-247 is a selective cathepsin S inhibitor with K _i s of 2.1, 4.2 and 7.5 nM for human, mouse and cynomolgus monkey cathepsin S, respectively.
IC₅₀ & Target	cathepsin S
In Vivo	Oral administration of MIV-247 (100-200 μmol/kg) dose-dependently attenuates mechanical allodynia by up to approximately 50% reversal when given as a single dose or when given twice daily for 5 days. Cathepsin S inhibition with MIV-247 exerts significant antiallodynic efficacy alone, and also enhances the effect of gabapentin and pregabalin without increasing side effects or inducing pharmacokinetic interactions ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration ^[1]	Mice ^[1] MIV-247 is administered via oral gavage to Male C57BL/6 mice (20-30 g) at a dose volume of 5 ml/kg at doses up to 200 μmol/kg. In the PK studies, seven blood samples (20 μL) are drawn from the lateral saphenous vein of each mouse at 15 minutes, 30 minutes, 1 hour, 2 hours, 3 hours, 5 hours, and 7 hours postdose ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
---	---

CUSTOMER VALIDATION

- J Cell Physiol. 2021 Feb;236(2):1309-1320.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Hewitt E. et al. Selective Cathepsin S Inhibition with MIV-247 Attenuates Mechanical Allodynia and Enhances the Antiallodynic Effects of Gabapentin and Pregabalin in a Mouse Model of Neuropathic Pain. J Pharmacol Exp Ther. 2016 Sep;358(3):387-96.

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