# Product Data Sheet

Product Name: MIV-247
Cat. No.: GC31106

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 1352817-76-5 | | |
| SMILES | FC1(-;@C-;@C-;@C-;@C-;@1)C[C@H](NC(C(F)(F)C)=O)C(NC2(-;@C-;@C-;@C-;@2)C(C(N)=O)=O)=O | | |
| Formula | $C_{17}H_{24}F_3N_3O_4$ | M.Wt | 391.39 |
| Solubility | Soluble in DMSO | Storage | Store at -20°C |
| General tips | For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months. | | |
| Shipping Condition | Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request. | | |
| Structure | MIV-247 | | |

## Protocol

**Animal experiment:**

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].


***Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com***
***Address: 10292 Central Ave. #205, Montclair, CA, USA***

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.

## Background

MIV-247 is a selective cathepsin S inhibitor with Kis of 2.1, 4.2 and 7.5 nM for human, mouse and cynomolgus monkey cathepsin S, respectively.

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].

[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.


***Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com***
***Address: 10292 Central Ave. #205, Montclair, CA, USA***