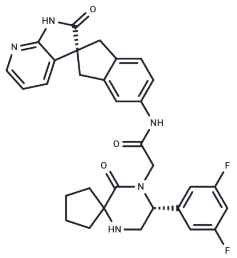
# Data Sheet (Cat.No.T21558)

TargetMol

MK-3207

## Chemical Properties



CAS No. : 957118-49-9

Formula: C31H29F2N5O3

Molecular Weight: 557.59

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

## Biological Description

| | |
|---|---|
| Description | MK-3207 is a highly potent and orally bioavailable small molecule antagonist of the calcitonin gene-related peptide (CGRP) receptor, demonstrating an in vitro IC50 of 0.12 nM and a Ki of 0.024 nM for the human receptor with exceptional selectivity over the related human AM1, AM2, CTR, and AMY3 receptors, though it exhibits lower affinity for CGRP receptors from other species such as canine and rodent; in vitro studies confirm its potent antagonism of human and rhesus monkey CGRP receptors (K(i) = 0.024 nM), and in vivo models show it produces a concentration-dependent inhibition of dermal vasodilation, requiring plasma concentrations of 0.8 nM and 7 nM to block 50% and 90% of the blood flow increase, respectively. |
| Targets(IC50) | CGRP Receptor |
| In vitro | MK-3207 (0.3, 0.6, 1.1, 2.3, 4.5, 9.0 nM, 30 min) potently blocks human α-CGRP-stimulated cAMP responses in HEK293 cells expressing the human CGRP receptor. [1] |

## Solubility Information

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|---|---|
| Solubility | DMSO: ≥ 120 mg/mL,Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.59 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.7934 mL | 8.9672 mL | 17.9343 mL |
| 5 mM | 0.3587 mL | 1.7934 mL | 3.5869 mL |
| 10 mM | 0.1793 mL | 0.8967 mL | 1.7934 mL |
| 50 mM | 0.0359 mL | 0.1793 mL | 0.3587 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Salvatore CA, Moore EL, Calamari A, Pharmacological properties of MK-3207, a potent and orally active calcitonin gene-related peptide receptor antagonist. J Pharmacol Exp Ther. 2010 Apr;333(1):152-60.