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## Product Data Sheet

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Product Name: MK-5172 sodium salt

Cat. No.: GC11463

**Chemical Properties**

Cas. No. 1425038-27-2

CC(C)

SMILES (C1C(N2CC(OC3=NC4=C(N=C3CCCCC5CC5OC(N1)=O)C=CC(OC)=C4)CC2C(NC6(C(NS(=O)(C7CC7)=O)=O)CC6C=C)=O)=O)C.[Na+]Formula C<sub>38</sub>H<sub>50</sub>N<sub>6</sub>NaO<sub>9</sub>S<sup>+</sup>

M.Wt

789.89

Solubility Soluble in DMSO

Storage

Store at -20°C

General For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue Condition ice upon request.

Structure **Background**

IC<sub>50</sub> Value: 7.4nM and 7nM for genotype1b and 1a respectively, in replicon system [1] MK-5172 is a novel P2-P4 quinoxaline macrocyclic HCV NS3/4a protease inhibitor currently in clinical development. In vitro: In biochemical assays, MK-5172 was effective against a panel of major genotypes and variants engineered with common resistant mutations observed in clinical studies with other NS3/4a protease inhibitors. In the replicon assay, MK-5172 demonstrated subnanomolar to low-nanomolar EC<sub>50</sub>s against genotypes 1a, 1b, and 2a [2]. In vivo: In rats, MK-5172 showed a plasma clearance of 28 ml/min/kg and plasma half-life of 1.4 hr. When dosed p.o. at 5 mg/kg, the plasma exposure of MK-5172 was good with an AUC of 0.7 uM.hr. The liver exposure of the compound was quite good (23 uM at 4 hr), and MK-5172 remained in liver 24 hr after a single p.o. 5 mg/kg dose. At 24 hr, the liver concentration of MK-5172 was 0.2 uM, which was over 25-fold higher than the IC<sub>50</sub> in the replicon assay with 50% NHS. When dosed to dogs, MK-5172 showed low clearance of 5 ml/min/kg and a 3 hr half-life after i.v. 2 mg/kg dosing and had good plasma exposure (AUC=0.4 uM.hr) after a p.o. 1 mg/kg dose [1]. Clinical trial: Evaluation of Hepatic Pharmacokinetics for MK-5172 in Participants With Chronic Hepatitis C . Phase1

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

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