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## Product Data Sheet

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Product Name: JTK-853  
 Cat. No.: GC32384

### Chemical Properties

Cas. No. 954389-09-4

SMILES O=C([C@@H]1N(S(=O)(C2=CC=C(C(F)(F)C=C2)=O)CCN(C3=NC4=NC(C5CC5)=NC=C4S3)C1)NCC6=CC=C(OC(F)(F)C(F)=C6

Formula  $C_{28}H_{23}F_7N_6O_4S_2$  M.Wt 704.64

Solubility Soluble in DMSO Storage Store at -20°C

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

### Protocol

#### Cell experiment:

For the determination of cytotoxicity of JTK-853, the Huh-7.5 cells are treated with JTK-853 for 2 weeks. The thumb pocket NNI-B and NS5Ai are added at 100 μM and 100 nM, respectively. JTK-853 is added at 10 μM. JTK-853-containing medium is changed twice a week. Two weeks after the culture, the cells are stained with crystal violet [1% (v/v) in methanol], and then lysed by the lysis buffer. The cytotoxicity is determined as a measurement of OD 595 nm of the cell lysates[1].

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

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### References:

[1]. Ando I, et al. JTK-853, a novel non-nucleoside hepatitis C virus polymerase inhibitor, demonstrates a high genetic barrier to resistance in vitro. Intervirology. 2013;56(5):302-9.

### Background

JTK-853 is a novel, non-nucleoside Hepatitis C Virus (HCV) polymerase inhibitor which shows effective antiviral activity in HCV replicon cells with EC50s of 0.38 and 0.035  $\mu\text{M}$  in genotype 1a H77 and 1b Con1 strains, respectively.

JTK-853 is a novel, non-nucleoside Hepatitis C Virus Polymerase inhibitor which shows effective antiviral activity in HCV replicon cells with EC50s of 0.38 and 0.035  $\mu\text{M}$  in genotype 1a H77 and 1b Con1 strains, respectively. When JTK-853 is incubated with the replicon cells for 48 h, it shows antiviral activity against genotype 1a H77 and 1b Con1 replicon cells with EC90 values of  $6.5 \pm 0.5$  and  $0.34 \pm 0.05$   $\mu\text{M}$ , respectively. At 10  $\mu\text{M}$ , JTK-853 induces apparent Huh-7.5 cell death in 2-week culture. JTK-853 suppresses the drug-resistant colony formation in the genotype 1a replicon cells, and the numbers of JTK-853-resistant colonies are much lower than those of GS-9190-resistant colonies for both genotypes[1].

[1]. Ando I, et al. JTK-853, a novel non-nucleoside hepatitis C virus polymerase inhibitor, demonstrates a high genetic barrier to resistance in vitro. Intervirology. 2013;56(5):302-9.

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