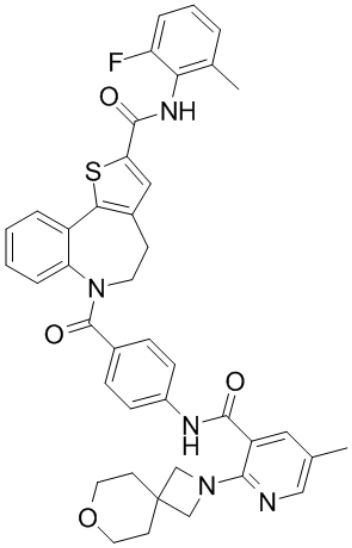
Product Data Sheet

Product Name: PC786
Cat. No.: GC32300

Chemical Properties

Cas. No.	1902114-15-1		
SMILES	O=C(C(S1)=CC2=C1C3=CC=CC=C3N(C(C4=CC=C(NC(C5=CC(C)=CN=C5N6CC7(CCOCC7)C6)=O)C=C4)=O)CC2)NC8=C(C)C=CC=C8F		
Formula	$C_{41}H_{38}FN_5O_4S$	M.Wt	715.83
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



Background

PC786 is an inhaled respiratory syncytial virus (RSV) L protein polymerase inhibitor. PC786 demonstrates potent antiviral activity against RSV-A (IC50 <0.09 to 0.71 nM) and RSV-B (IC50, 1.3 to 50.6 nM)[1].

PC786 demonstrates a potent and selective antiviral activity against laboratory-adapted or clinical

isolates of RSV-A (IC50<0.09 to 0.71 nM) and RSV-B (IC50, 1.3 to 50.6 nM), which are determined by inhibition of cytopathic effects in HEp-2 cells without causing detectable cytotoxicity. PC786 inhibits RSV A2 activity, exhibiting an IC50 and IC90 of 0.50±0.0014 nM and 0.63±0.035 nM, respectively. PC786 inhibits RSV B WST activity, exhibiting an IC50 and IC90 of 27.3±0.77 nM and 57.1±3.87 nM, respectively. PC786 exhibits potent inhibition of cytopathic effect (CPE) induced by known RSV A clinical isolates (IC50, 0.14 to 3.2 nM). PC786 also exhibits potent inhibition of CPE induced by various low-passage-number clinical isolates of RSV A (IC50, 0.42 nM [median]) and RSV B (IC50, 17.5 nM [median])[1].

Once-daily treatment with PC786, on days-1 to 3, by either intratracheal (i.t.) or intranasal (i.n.) administration, is found to inhibit viral loads in the lungs of RSV A2-infected BALB/c mice. The viral load is below the level of detection when the drug is given at 2 mg/mL (40 µg/mouse [approximately 1.6 mg/kg of body weight] for i.t. treatment, or 80 µg/mouse [approximately 3.2 mg/kg] for i.n. treatment)[1].

[1]. Coates M, et al. Preclinical Characterization of PC786, an Inhaled Small-Molecule Respiratory Syncytial Virus L Protein Polymerase Inhibitor. Antimicrob Agents Chemother. 2017 Aug 24;61(9). pii: e00737-17.

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