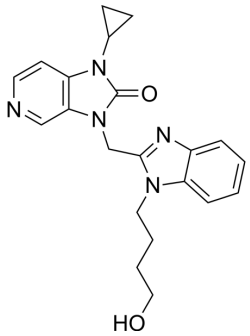
BMS-433771

Cat. No.:	HY-120632
CAS No.:	543700-68-1
Molecular Formula:	$C_{21}H_{23}N_5O_2$
Molecular Weight:	377.44
Target:	RSV
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6.25 mg/mL (16.56 mM; ultrasonic and warming and heat to 60°C)
H_2O : 2.5 mg/mL (6.62 mM; ultrasonic and adjust pH to 4 with HCl)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6494 mL	13.2471 mL	26.4943 mL
5 mM	0.5299 mL	2.6494 mL	5.2989 mL
10 mM	0.2649 mL	1.3247 mL	2.6494 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

BMS-433771 is a potent orally active inhibitor of respiratory syncytial virus (RSV). BMS-433771 is active against both A and B groups of RSV, with an average EC_{50} of 20 nM. BMS-433771 can be used for the research of respiratory tract disease[1][2].

IC_{50} & Target

EC50: 20 nM (RSV)[1]

In Vitro

BMS-433771 has inhibitory against both A and B groups of RSV, with an average EC_{50} of 20 nM[1].
BMS-433771 can inhibit viral F protein-induced membrane fusion[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

BMS-433771 (p.o.; 1-200 mg/kg; single or bid 4 days) shows prophylactic efficacy via oral dosing but has considerable pharmacodynamic differences between the two rodent models[2]
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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	rodent models of RSV infection[2] (cotton rat and mice)
Dosage:	1, 10, and 50 mg/kg (mice); 25, 50, 100, and 200 mg/kg (rat)
Administration:	oral, single or bid 4 days
Result:	Had prophylactic efficacy via oral dosing in both animal models. Showed RSV infection more sensitive to inhibition in the BALB/c mouse host than in the cotton rat.

REFERENCES

[1]. Christopher Cianci, et al. Antiviral activity and molecular mechanism of an orally active respiratory syncytial virus fusion inhibitor. J Antimicrob Chemother

[2]. Christopher Cianci, et al. Oral efficacy of a respiratory syncytial virus inhibitor in rodent models of infection. Antimicrob Agents Chemother. 2004 Jul;48(7):2448-54.

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