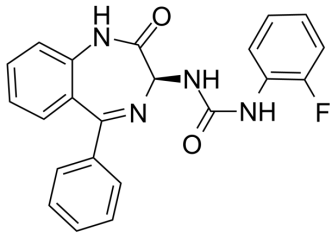
RSV604

Cat. No.:	HY-12993
CAS No.:	676128-63-5
Molecular Formula:	$C_{22}H_{17}FN_4O_2$
Molecular Weight:	388.39
Target:	RSV
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (257.47 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5747 mL	12.8737 mL	25.7473 mL
	5 mM	0.5149 mL	2.5747 mL	5.1495 mL
	10 mM	0.2575 mL	1.2874 mL	2.5747 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.44 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.44 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.44 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

RSV604 (A-60444) is an inhibitor of respiratory syncytial virus (RSV) replication. RSV604 targets the nucleocapsid protein, with a K_d of 1.6 μM. RSV604 displays submicromolar activity against numerous clinical isolates of both the A and B subtypes of RSV (average EC_{50}s=0.8 μM)[1][2].

IC_{50} & Target

Kd: 1.6 μM (nucleocapsid protein)[2]

In Vitro

RSV604 (5 days) inhibits the growth of four laboratory strains of RSV (RSS, Long, A2 and B), with EC_{50}s ranging from 0.5 to 0.9

μM in plaque reduction assay[1].
RSV604 (6 days) inhibits RSV-induced HEp-2 cell death, with an EC_{50} of 0.86 μM[1].
RSV604 (3 days) reduces viral antigen synthesis in RSV-infected HEp-2 cells, with an EC_{50} of 1.7 μM[1].
RSV604 (1-20 μM; 7 days) dose-dependently inhibits RSV infection in human airway epithelial (HAE) cells, with no gross cytotoxicity, leakage of basolateral fluid to the apical surface, or alteration of cilium beat frequency[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Enzyme Inhib Med Chem. 2022 Dec;37(1):2598-2604.
- J Org Chem. 2020 Mar 20;85(6):4267-4278.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Chapman J, et al. RSV604, a novel inhibitor of respiratory syncytial virus replication. Antimicrob Agents Chemother. 2007 Sep;51(9):3346-53.

[2]. Challa S, et al. Mechanism of action for respiratory syncytial virus inhibitor RSV604. Antimicrob Agents Chemother. 2015 Feb;59(2):1080-7.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA