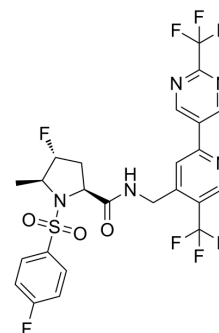


GDC-0334

Cat. No.:	HY-115877
CAS No.:	1984824-54-5
Molecular Formula:	C ₂₄ H ₁₉ F ₈ N ₅ O ₃ S
Molecular Weight:	609.49
Target:	TRP Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	GDC-0334 is a selective TRPA1 antagonist. GDC-0334 inhibits TRPA1 function on airway smooth muscle and sensory neurons by decreasing cough and allergic airway inflammation in rats and guinea pigs. GDC-0334 can be used for TRPA1-mediated diseases research, such as pain or asthma ^{[1][2]} .						
IC ₅₀ & Target	TRPA1						
In Vivo	GDC-0334 (0-150 mg/kg; i.v.) decreases edema, dermal blood flow (DBF), cough, and allergic airway inflammation in rats ^[1] . GDC-0334 (0.5/1 mg/kg for i.v., 1/5 mg/kg mg/kg for p.o.) shows a T _{1/2} of 11.9 h in mice and 9.79 h in rats by i.v., and oral bioavailability (F%) of 45.0% in mice and 46.2% in rats ^[1] . Pharmacokinetic parameters for GDC-0334 in mouse/rat/dog/monkey ^[1] MCE has not independently confirmed the accuracy of these methods. They are for reference only.						
	Species	IV Dose	CL (ml/min/kg)	VSS (liter/kg)	T _{1/2} (h)	PO Dose(mg/kg)	Oral F(%)
	Mouse	0.5	12.4	13.9	11.9	1	45.0
	Rat	1	7.68	5.55	9.79	5	46.2
	Dog	1	7.57	6.97	28.0	5	27.1
	Monkey	1	14.9	5.41	7.75	5	13.4
	Animal Model:	Mouse, rat, dog, monkey (Pharmacokinetic assay) ^[2]					
	Dosage:	0.5,1,5 mg/kg					
	Administration:	Intravenous injection (i.v.), oral gavage (p.o.)					
	Result:	Showed a T _{1/2} of 11.9 h in mice and 9.79 h in rats by i.v., and oral bioavailability (F%) of 45.0% in mice and 46.2% in rats ^[1] .					

Animal Model:	Rats/guinea pigs model of cough ^[2]
Dosage:	3,10,35,70,75,150 mg/kg
Administration:	Intravenous injection (i.v.)
Result:	Suppressed AITC-induced edema in vivo in rat. Caused a dose-dependent reduction in AITC-induced dermal blood flow in guinea pigs. Reduced airway allergic inflammation in rats and guinea pigs as well as cough in guinea pigs.

REFERENCES

- [1]. Balestrini A, et.al A TRPA1 inhibitor suppresses neurogenic inflammation and airway contraction for asthma treatment. J Exp Med. 2021 Apr 5;218(4):e20201637.
- [2]. Estrada A, et al. 1-(het)arylsulfonyl-(pyrrolidine or piperidine)-2-carboxamide derivatives and their use as trpa1 antagonists. WO2016128529 A1.

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

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