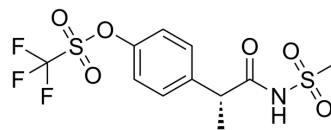


Ladarixin

Cat. No.:	HY-19519		
CAS No.:	849776-05-2		
Molecular Formula:	C ₁₁ H ₁₂ F ₃ NO ₆ S ₂		
Molecular Weight:	375.34		
Target:	CXCR		
Pathway:	GPCR/G Protein; Immunology/Inflammation		
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 : 100 mg/mL (266.43 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.6643 mL	13.3213 mL	26.6425 mL
5 mM	0.5329 mL	2.6643 mL	5.3285 mL
10 mM	0.2664 mL	1.3321 mL	2.6643 mL

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

In Vivo

- Add each solvent one by one: 50% PEG300 >> 50% saline
Solubility: 10 mg/mL (26.64 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (6.66 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.66 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (6.66 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ladarixin (DF 2156A free base) is an orally active, allosteric non-competitive and dual CXCR1 and CXCR2 antagonist. Ladarixin can be used for the research of COPD and asthma^[1].

In Vitro

Ladarixin inhibits human polymorphonuclear leukocyte (PMN) migration to CXCL8 (IC₅₀ at 0.7 nM)^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Ladarixin (10 mg/kg; p.o. once a day) reduces allergic airway inflammation in a model of single OVA exposure. Ladarixin reduces allergic airway inflammation, remodeling, and bronchial hyperreactivity in a model of chronic OVA exposure^[1].

?Ladarixin (10 mg/kg; p.o. once a day for 8 days) reduces pulmonary inflammation and fibrosis induced by bleomycin in mice^[1].

?Ladarixin (10 mg/kg; p.o. once a day for 3 days) protects mice from cigarette smoke-induced exacerbation of influenza-A infection^[1].

?Ladarixin is also effective in decreasing CXCL8-induced polymorphonuclear leukocyte infiltration in several animal models without a significant dose-related reduction in systemic neutrophil counts^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Mice (cigarette smoke-induced exacerbation of Influenza-A infection model) ^[1]
Dosage:	10 mg/kg
Administration:	P.o. once a day at days 2, 3 and 4 post-infection
Result:	Significantly attenuated the exacerbation in lethality and respiratory changes noted in CSFlu group.

CUSTOMER VALIDATION

- J Exp Clin Cancer Res. 2024 Mar 19;43(1):86.

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REFERENCES

[1]. Matheus Silverio Mattos, et al. CXCR1 and CXCR2 Inhibition by Ladarixin Improves Neutrophil-Dependent Airway Inflammation in Mice. Front Immunol. 2020 Oct 2;11:566953.

[2]. Daria Marley Kemp, et al. Ladarixin, a dual CXCR1/2 inhibitor, attenuates experimental melanomas harboring different molecular defects by affecting malignant cells and tumor microenvironment. Oncotarget. 2017 Feb 28;8(9):14428-14442

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

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