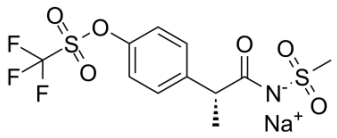
Ladarixin sodium

Cat. No.:	HY-19519A
CAS No.:	865625-56-5
Molecular Formula:	$C_{11}H_{11}F_3NNaO_6S_2$
Molecular Weight:	397.32
Target:	CXCR
Pathway:	GPCR/G Protein; Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ladarixin sodium (DF 2156A) is an orally active, allosteric non-competitive and dual CXCR1 and CXCR2 antagonist. Ladarixin sodium can be used for the research of COPD and asthma[1].
IC_{50} & Target	CXCR1 / CXCR2
In Vitro	Ladarixin inhibits human polymorphonuclear leukocyte (PMN) migration to CXCL8 (IC_{50} 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.

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.

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