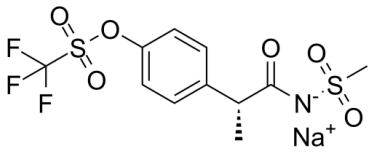
Data Sheet

Product Name:	Ladarixin (sodium)
Cat. No.:	CS-0015619
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
Solubility:	DMSO : 100 mg/mL (251.69 mM; Need ultrasonic); H2O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)



BIOLOGICAL ACTIVITY:

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].

In Vitro: Ladarixin inhibits human polymorphonuclear leukocyte (PMN) migration to CXCL8 (IC_{50} at 0.7 nM)[2].

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].

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.

CAIndexNames:

Methanesulfonic acid, 1,1,1-trifluoro-, 4-[(1R)-1-methyl-2-[(methylsulfonyl)amino]-2-oxoethyl]phenyl ester, sodium salt (1:1)

SMILES:

O=S(C(F)(F)F)(OC1=CC=C([C@@H](C)C([N-]S(=O)(C)=O)=O)C=C1)=O.[Na+]

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

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