Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Reparixin

Catalog No: tcsc1379

Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Size: 200mg

Specifications

CAS No:
266359-83-5

Formula:
$C_{14}H_{21}NO_3S$

Pathway:
GPCR/G Protein;Immunology/Inflammation

Target:
CXCR;CXCR

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 500 mg/mL (1764.35 mM)

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Alternative Names:
Repertaxin;DF 1681Y

Observed Molecular Weight:
283.39

Product Description

Reparixin is a potent inhibitor of both CXCL8 receptors **CXCR1/2**, it inhibits weakly **CXCR2**-mediated cell migration ($\mathbf{IC_{50}}$=100 nM), whereas it strongly blocks **CXCR1**-mediated chemotaxis ($\mathbf{IC_{50}}$=1 nM).

IC50 & Target: IC50: 5.6/80 nM ($CXCR1^{wt}$/$CXCR1^{Ile43Val}$, in L1.2 cell)[1]

In Vitro: Reparixin is a potent functional inhibitor of CXCL8-induced biological activities on human PMNs with a marked selectivity (around 400-fold) for CXCR1, as shown in specific experiments on CXCR1/L1.2 and CXCR2/L1.2 transfected cells and on human PMNs. The efficacy of Reparixin is significantly lower in L1.2 cells expressing Ile43Val CXCR1 mutant (IC_{50} values of 5.6 nM and 80 nM for CXCR1 wt and CXCR1 Ile43Val, respectively)[1]. Reparixin is a non-competitive allosteric inhibitor of IL-8 receptors with a 400-fold higher efficacy in inhibiting CXCR1 activity than CXCR2[2].

In Vivo: Reparixin is an inhibitor of CXCL8 receptor CXCR1 and CXCR2 activation, has been shown to attenuate inflammatory responses in various injury models. Spontaneously hypertensive rats (SHR) are administered a subcutaneous injection of Reparixin (5 mg/kg) daily for 3 weeks. Reparixin effectively decreases systolic blood pressure and increased the blood flow[3]. Reparixin reduces the levels of IL-1β in the brain after middle cerebral artery occlusion/reperfusion (MCAo) in mice. Bars represent levels of IL-1β (pg/100 mg) measured by ELISA in the brain tissues of mice subjected or not (SHAM) to MCAo and pretreated with vehicle or Reparixin (30 mg/kg, s.c.)[4].