
Product Data Sheet

Product Name: CJ-13610
Cat. No.: GC18728

Chemical Properties

Cas. No. 179420-17-8

Chemical Name tetrahydro-4-[3-[[4-(2-methyl-1H-imidazol-1-yl)phenyl]thio]phenyl]-2H-pyran-4-carboxamide

SMILES NC(C1(CCOCC1)C2=CC=CC(SC3=CC=C(N4C(C)=NC=C4)C=C3)=C2)=O

Formula $C_{22}H_{23}N_3O_2S$ M.Wt 393.5

Solubility DMSO: 10 mg/ml, Ethanol: 1 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure

Background

CJ-13610 is an inhibitor of 5-lipoxygenase (5-LO) that inhibits 5-LO product formation in human polymorphonuclear leukocytes (PMNLs) challenged with A23187 in vitro (IC₅₀ = 70 nM). It inhibits recombinant 5-LO in a glutathione peroxidase-dependent manner (IC₅₀ = 300 nM). CJ-13610 also inhibits 5-LO product formation induced by phosphorylation in PMNLs and HeLa cells. In vivo, CJ-13610 (3-10 mg/kg) reduces levels of leukotriene B₄ and decreases mechanical hyperalgesia in a rat model of chronic inflammatory pain induced by Freund's adjuvant. It also reverses tactile allodynia and increases hind paw weight bearing in a rat medial meniscal transection model of osteoarthritic pain when administered at doses ranging from 0.6 to 6 mg/kg.

References:

[1]. Fischer, L., Steinhilber, D., and Werz, O. Molecular pharmacological profile of the nonredox-type 5-lipoxygenase inhibitor CJ-13,610. *Br. J. Pharmacol.* 142(5), 861-868 (2004).

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

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[2]. Cortes-Burgos, L.A., Zweifel, B.S., Settle, S.L., et al. CJ-13610, an orally active inhibitor of 5-lipoxygenase is efficacious in preclinical models of pain Eur. J. Pharmacol. 617(1-3), 59-67 (2009).

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