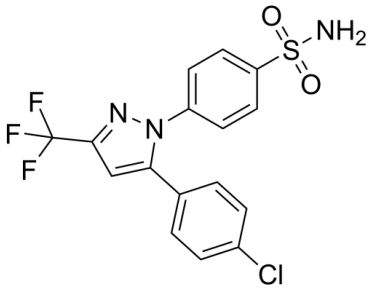
Data Sheet

Product Name:	SC-236
Cat. No.:	CS-W011699
CAS No.:	170569-86-5
Molecular Formula:	$C_{16}H_{11}ClF_3N_3O_2S$
Molecular Weight:	401.79
Target:	Apoptosis; COX; PPAR
Pathway:	Apoptosis; Cell Cycle/DNA Damage; Immunology/Inflammation; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
Solubility:	DMSO : 100 mg/mL (ultrasonic)



BIOLOGICAL ACTIVITY:

SC-236 is an orally active **COX-2** specific inhibitor (**IC_{50}** = 10 nM) and a **PPARγ** agonist. SC-236 suppresses activator protein-1 (**AP-1**) through c-Jun NH2-terminal kinase. SC-236 exerts anti-inflammatory effects by suppressing phosphorylation of ERK in a murine model[1][2][3][4][5]. ***In Vitro:*** SC-236 (15 μM, 30 min) suppresses the side effects of NSAIDs and prevented inflammation in vECs subjected to ALSS[1].

SC-236 significantly induces PPARγ expression in HSCs and acted as a potent PPARγ agonist in a luciferase-reporter trans-activation assay[2].

SC-236 strongly inhibits, in a time- and concentration-dependent manner, macrophage viability[2].

SC-236, either alone or in combination with 15d-PGJ2, induced a marked pro-apoptotic effect in HSCs in culture[2].

SC-236 mediates antitumor effect by modulation of AP-1-signaling pathway[3].

In Vivo: SC-236 (6 mg/kg, gavage) exhibits anti-fibrotic properties in CCl4- treated animals[2].

References:

[1]. Shao-Yu Fang, et al. Reduction in MicroRNA-4488 Expression Induces NFκB Translocation in Venous Endothelial Cells Under Arterial Flow. Cardiovasc Drugs Ther. 2020 Sep 9.

[2]. Anna Planagumà, et al. The selective cyclooxygenase-2 inhibitor SC-236 reduces liver fibrosis by mechanisms involving non-parenchymal cell apoptosis and PPARgamma activation. FASEB J. 2005 Jul;19(9):1120-2.

[3]. Benjamin Chun-Yu Wong, et al. Cyclooxygenase-2 inhibitor (SC-236) suppresses activator protein-1 through c-Jun NH2-terminal kinase. Gastroenterology. 2004 Jan;126(1):136-47.

[4]. Su-Jin Kim, et al. The COX-2 inhibitor SC-236 exerts anti-inflammatory effects by suppressing phosphorylation of ERK in a murine model. Life Sci. 2007 Aug 23;81(11):863-72.

[5]. T D Penning, et al. Synthesis and biological evaluation of the 1,5-diarylpyrazole class of cyclooxygenase-2 inhibitors: identification of 4-[5-(4-methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]benze nesulfonamide (SC-58635, celecoxib). J Med Chem. 1997 Apr 25;40(9):1347-65.

CAIndexNames:

Benzenesulfonamide, 4-[5-(4-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-

SMILES:

O=S(C1=CC=C(N2N=C(C(F)(F)F)C=C2C3=CC=C(Cl)C=C3)C=C1)(N)=O

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

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA