Product Data Sheet

Product Name: CMI-392
Cat. No.: GC33905

Chemical Properties

Cas. No.	205654-37-1		
SMILES	O=C(NCC1=CC([C@H]2O[C@H](C3=CC(OC)=C(OC)C(OC)=C3)CC2)=CC(OC)=C1OCCSC4=CC=C(Cl)C=C4)N(O)C		
Formula	$C_{31}H_{37}ClN_2O_8S$	M.Wt	633.15
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	CMI-392		

Protocol

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Kinase experiment:

5-lipoxygenese activity in cell lysate is determined as follows: 0.1 mL reactions consisting of buffer, test compound (CMI-392 in DMSO), and an amount of cell lysate that will convert 15% of [14C]AA substrate mix to oxygenated products are incubated (20 min, room temperature). A substrate mix containing [14C]AA is added and incubated further (5 min, 37°C). The reaction is terminated by adding 0.2 mL of an organic extraction solution containing triphenylphosphine, followed by microcentrifugation. The organic phase (50 µL) is spotted onto silica gel TLC plates. The plates are developed in ethyl ether/acetic acid (100:0.1) (25 min, room temperature). Plates are exposed to film for 36 h. The film is developed and scanned using a densitometer, and the peak areas of AA and its products are calculated[1].

Animal experiment:

Mice: Acute TPA-induced ear edema in mice is determined by topically applying TPA to the ears of mice. Mice are sacrificed after 6 h and the ear punch biopsies are weighed. Chronic TPA-induced ear edema in mice is determined by topically applying TPA once a day every 2 days for a total of 10 days. CMI-392 is topically administered twice daily on the last 3 days of the experiment. Mice are then sacrificed and the ear punch biopsies are weighed. Biopsies are homogenized and MPO content is determined via spectrophotometric assay[1].

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

References:

[1]. Cai X, et al. (+/-)-trans-2-[3-methoxy-4-(4-chlorophenylthioethoxy)-5-(N-methyl-N-hydroxyureidyl)methylphenyl]-5-(3,4, 5-trimethoxyphenyl)tetrahydrofuran (CMI-392), a potent dual 5-lipoxygenase inhibitor and platelet-activating factor receptor antagonist. J Med Chem. 1998 May 21;41(11):1970-9.

Background

CMI-392 is a dual 5-lipoxygenese inhibitor and platelet-activating factor (PAF) receptor antagonist with IC50s of 100 and 10 nM, respectively.

Topical treatment of CMI-392 in the acute and chronic TPA models result in a significant decrease of ear weight, inflammatory cell infiltration, and histological examination. The ED50 for PAF-induced mouse hemoconcentration and arachidonic acid-induced mouse ear edema are 2.2 and 1.8 mg/kg, respectively[1].

[1]. Cai X, et al. (+/-)-trans-2-[3-methoxy-4-(4-chlorophenylthioethoxy)-5-(N-methyl-N-hydroxyureidyl)methylphenyl]-5-(3,4, 5-trimethoxyphenyl)tetrahydrofuran (CMI-392), a potent dual 5-lipoxygenase inhibitor and platelet-activating factor receptor antagonist. J Med Chem. 1998 May 21;41(11):1970-9.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA