

Product Data Sheet

Product Name: CITCO
Cat. No.: GC17491

Chemical Properties

Cas. No. 338404-52-7

Chemical Name (E)-6-(4-chlorophenyl)imidazo[2,1-b]thiazole-5-carbaldehyde O-(3,4-dichlorobenzyl) oxime

SMILES C1C=CC=C(C=C1)C2=C(/C=N/OCC(C=C3Cl)=CC=C3Cl)N4C(SC=C4)=N2

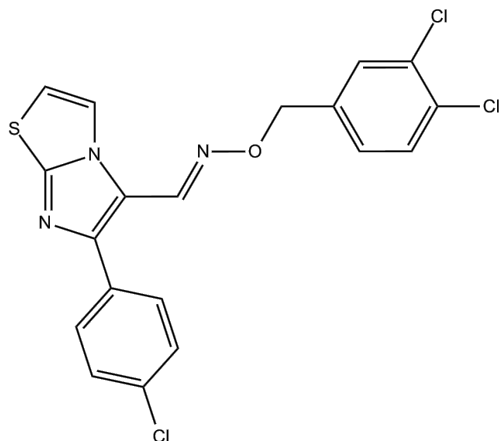
Formula $C_{19}H_{12}Cl_3N_3OS$ M.Wt 436.74

Solubility DMF: 20 mg/ml, DMSO: 10 mg/ml Storage Desiccate 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

CITCO, an imidazothiazole derivative, is a selective Constitutive androstane receptor (CAR) agonist. CITCO inhibits growth and expansion of brain tumour stem cells (BTSCs) and has an EC₅₀ of 49 nM over pregnane X receptor (PXR), and no activity on other nuclear receptors[1].

CITCO (1-50 μM; 48 hours) results in a dose-dependent inhibition of viable cell count and

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

proliferation in both T98G and U87MG glioma and BTSCs[1]. CITCO (2.5, 5 μ M; 48 hours) induces cell cycle arrest differentially in different BTSCs in culture, but not in normal astrocytes[1]. CITCO (2.5-10 μ M; 48 hours) induces apoptosis in BTSCs in culture in dose dependently, but not in normal astrocytes[1]. CITCO (0-25 μ M; 48 hours) causes the T98G and U87MG glioma and BTSCs expressing very low levels of CAR protein that increased significantly[1].

CITCO (intraperitoneal; on days 22, 24, 26, 30 and 36) with 25 μ g results a significant decrease in tumour growth, which further decreases to an undetectable level after treatment with 100 μ g CITCO [1].

References:

[1]. Chakraborty S, et al. Constitutive androstane receptor agonist CITCO inhibits growth and expansion of brain tumour stem cells. Br J Cancer. 2011 Feb 1;104(3):448-59.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA