Product Data Sheet

Product Name: (R)-CCG-1423
Cat. No.: GC10419

Chemical Properties

Cas. No.	2309931-09-5		
Chemical Name	(R)-N-((1-((4-chlorophenyl)amino)-1-oxopropan-2-yl)oxy)-3,5-*bis*(trifluoromethyl)benzamide		
SMILES	O=C(NO[C@H](C)C(NC1=CC=C(Cl)C=C1)=O)C2=CC(C(F)(F)F)=CC(C(F)(F)F)=C2		
Formula	$C_{18}H_{13}ClF_6N_2O_3$	M.Wt	454.8
Solubility	≤0.25mg/ml in ethanol;10mg/ml in DMSO;10mg/ml in dimethyl formamide	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	(R)-CCG-1423		

Background

(R)-CCG-1423 is a stereoisomer of CCG-1423. CCG-1423 is a Rho inhibitor involved in blocking signaling through myocardin-related transcription factor A (MRTF-A) and serum response factor (SRF) [1].

The Rho family of small GTPases plays an important role in cancer metastasis. Up-regulation of RhoA or RhoC has been associated with a poor clinical outcome. Rho GTPases are important for the actin cytoskeleton. The RhoA family plays an important role in multiple cellular processes central to tumor growth and metastasis [1].

CCG-14223 was an inhibitor for Rho/SRF pathway and displayed activity in several in vitro cancer cell functional assays. In PC-3 prostate cancer cells, CCG-1423(< 1 μmol/L) potently inhibited lysophosphatidic acid–induced DNA synthesis. CCG-1423 inhibited the growth of RhoC-overexpressing melanoma lines (A375M2 and SK-Mel-147) at nanomolar

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

concentrations. CCG-1423 selectively stimulated apoptosis of the metastasis-prone, RhoC-overexpressing melanoma cell line (A375M2) when compared with the parental cell line (A375). CCG-1423 inhibited Rho-dependent invasion by PC-3 prostate cancer cells [1]. The R-isomer of CCG-1423 inhibited MRTF-A-dependent cellular events, including SRF-mediated gene expression and cell migration. The efficacy of (R)-CCG-1423 was less potent than the S-isomer [2].

References:

[1] Evelyn C R, Wade S M, Wang Q, et al. CCG-1423: a small-molecule inhibitor of RhoA transcriptional signaling[J]. Molecular cancer therapeutics, 2007, 6(8): 2249-2260.
[2] Watanabe B, Minami S, Ishida H, et al. Stereospecific inhibitory effects of ccg-1423 on the cellular events mediated by myocardin-related transcription factor a[J]. PloS one, 2015, 10(8): e0136242.