Product Data Sheet

Chemical Properties

Product Name: SC 57461A
Cas No.: 423169-68-0
M.Wt: 363.88
Formula: C20H25NO3.HCl

Chemical Name: 3-[3-(4-benzylphenoxy)propyl-methylamino]propanoic acid;hydrochloride
Canonical SMILES: CN(CCCOC1=CC=C(C=C1)CC2=CC=CC=C2)CCC(=O)O.Cl

Solubility: Soluble in DMSO > 10 mM
Storage: Desiccate at 4°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.

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

Biological Activity

Targets: Proteases
Pathways: Aminopeptidase

Description:

SC-57461A is a selective inhibitor of human recombinant LTB4 with IC50 value of 49 nM [1]. LTB4 (leukotriene B (4)) is a leukotriene and plays an important role in inflammation. LTB4 functions through interacting with the specific cell-surface receptors BLTR1 and BLTR2 [2]. SC-57461A is a potent LTB4 inhibitor and has a more potent activity than the reported LTA4 inhibitor RP64966. When tested with PMN cells, administration of SC-57461A significantly
inhibited the synthesis of LT that induced by fMLP and PAF by acting on LTB4-BLTR1 interaction [3].
In fasted CD rat model of calcium ionophore A23187-induced eicosanoid production, oral administration of SC-57461A showed effective inhibition on LTB4 with ED50 value of 0.3-1.0 mg/kg. When tested with AA-induced edema on the ear, oral administration of SC-57461A resulted in markedly inhibition of edema at doses of 0.8, 4 and 20 mg/kg [1].
It is also been reported that SC-57461A inhibited LTB4A with Ki values of 23 nM and 27 nM for epoxide hydrolase and aminopeptidase, respectively [1].

Reference