

Product Data Sheet

Product Name: DCPIB
Cat. No.: GC14073

Chemical Properties

Cas. No. 82749-70-0

Chemical Name (R)-4-((2-butyl-6,7-dichloro-2-cyclopentyl-1-oxo-2,3-dihydro-1H-inden-5-yl)oxy)butanoic acid

SMILES CCCC(=O)OCCOC1=CC2(C(=O)C(C1)C3CCCC3C2)C(C)C

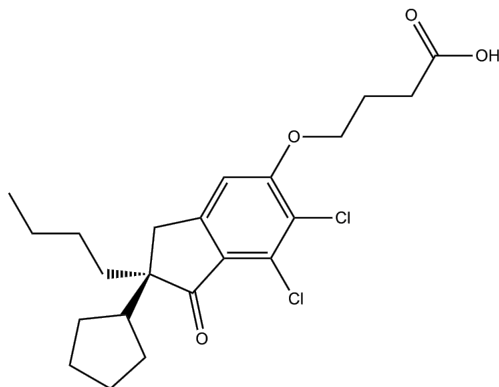
Formula $C_{22}H_{28}Cl_2O_4$ M.Wt 427.37

Solubility <42.74mg/ml in ethanol Storage Store 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

DCPIB is a selective, reversible and potent inhibitor of volume-regulated anion channels (VRAC), voltage-dependently activates potassium channels TREK1 and TRAAK, inhibits TRESK, TASK1 and TASK3 (IC₅₀s, 0.14, 0.95, 50.72 μM, respectively)[1]. DCPIB is also a selective blocker of swelling-induced chloride current (I_{Cl,swell}), with an IC₅₀ of 4.1 μM in CPAE cells[2].

References:

[1]. Lv J, et al. DCPIB, an Inhibitor of Volume-Regulated Anion Channels, Distinctly Modulates K2P

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

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Channels. ACS Chem Neurosci. 2019 Apr 17.

[2]. Decher N, et al. DCPIB is a novel selective blocker of I(Cl,swell) and prevents swelling-induced shortening of guinea-pig atrial action potential duration. Br J Pharmacol. 2001 Dec;134(7):1467-79.

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