

Product Data Sheet

Product Name: PDE4B Inhibitor

Cat. No.: GC47931

Chemical Properties

Cas. No. 2410550-31-9

SMILES O=C(N1CC(F)(C1)F)C2=CC3=C(N2C4=CC=C(C(CI)=C4)CI)N=CC=C3

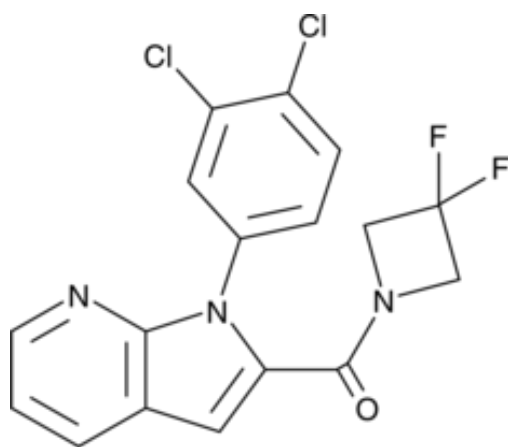
Formula C₁₇H₁₁Cl₂F₂N₃O M.Wt 382.2

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, DMSO:PBS (pH 7.2) (1:5): 0.16 mg/ml
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

PDE4B inhibitor is an inhibitor of phosphodiesterase 4B (PDE4B; IC₅₀ = 140 nM).^{1,2} It is selective for PDE4B over a panel of 20 PDE isoforms and a panel of 39 CNS receptors at 10 μM but does not inhibit the activity of PDE4C1, PDE3B, the serotonin (5-HT) receptor subtype 5-HT_{2C}, and sigma-2 (σ₂) receptors by greater than 50%.¹ PDE4B inhibitor (1 μM) decreases LPS- or Pam₃Cys-induced production of TNF-α in mouse bone marrow-derived macrophages (BMDMs). It reduces cocaine self-

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

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administration and the progressive ratio breakpoint in mice when administered at a dose of 5 mg/kg.²

1. Vadukoot, A.K., Sharma, S., Aretz, C.D., et al. Synthesis and SAR studies of 1H-pyrrolo[2,3-b]pyridine-2-carboxamides as phosphodiesterase 4B (PDE4B) inhibitors ACS Med. Chem. Lett. 11(10)1848-1854(2020) 2. Burkovetskaya, M.E., Liu, Q., Vadukoot, A.K., et al. KVA-D-88, a novel preferable phosphodiesterase 4B inhibitor, decreases cocaine-mediated reward properties in vivo ACS Chem. Neurosci. 11(15)2231-2242(2020)

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