

Product Data Sheet

Product Name: SACLAC
Cat. No.: GC49632

Chemical Properties

Cas. No. 2248703-42-4

SMILES C1CC(N[C@@H](CO)[C@@H](CCCCCCCCCCCCCCCC)O)=O

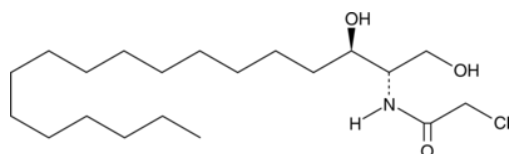
Formula C₂₀H₄₀ClNO₃ M.Wt 378

Solubility Chloroform: soluble Storage -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

SACLAC is an irreversible inhibitor of acid ceramidase ($K_i = 97.1$ nM) and a derivative of the acid ceramidase inhibitor SABRAC.¹ It decreases levels of sphingosine-1-phosphate (S1P) and increases total ceramide levels in OCI-AML-2 acute myeloid leukemia (AML) cells when used at a concentration of 2.5 μ M.² SACLAC (10 and 20 μ M) induces apoptosis in primary AML cells. It reduces leukemic burden in MV4-11 and U937 AML mouse xenograft models when administered at a dose of 5 mg/kg.

1. Ordóñez, Y.F., Abad, J.L., Aseeri, M., et al. Activity-based imaging of acid ceramidase in living cells. *J. Am. Chem. Soc.* 141(19)7736-7742(2019) 2. Pearson, J.M., Tan, S.-F., Sharma, A., et al. Ceramide analogue SACLAC modulates sphingolipid levels and MCL-1 splicing to induce apoptosis in acute myeloid leukemia. *Mol. Cancer Res.* 18(3)352-363(2020)

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

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