

## Product Data Sheet

Product Name: SACLAC  
Cat. No.: GC49632

### Chemical Properties

Cas. No. 2248703-42-4

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

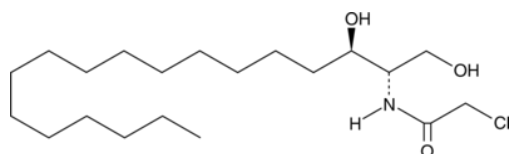
Formula C<sub>20</sub>H<sub>40</sub>ClNO<sub>3</sub> M.Wt 378

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.<sup>1</sup> 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  $\mu$ M.<sup>2</sup> SACLAC (10 and 20  $\mu$ 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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