
Product Data Sheet

Product Name: BML-278
Cat. No.: GC18408

Chemical Properties

Cas. No. 120533-76-8

Chemical Name 1,4-dihydro-4-phenyl-1-(phenylmethyl)-3,5-pyridinedicarboxylic acid, 3,5-diethyl ester

SMILES O=C(OCC)C1=CN(CC2=CC=CC=C2)C=C(C(OCC)=O)C1C3=CC=CC=C3

Formula $C_{24}H_{25}NO_4$ M.Wt 391.5

Solubility DMF: 12.5 mg/ml, DMF:PBS (pH 7.2)(1:3): 0.25 mg/ml, DMSO: 3 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 sizes: ship with RT, or blue ice upon request.

Structure

Background

BML-278 is an activator of sirtuin 1 (SIRT1) that has an EC₁₅₀ value (effective concentration able to increase the enzyme by 150%) of 1 μM. It less potently activates SIRT2 and SIRT3 (EC₁₅₀s = 25 and 50 μM, respectively). BML-278 induces hypoacetylation on α-tubulin in U937 cells that are pretreated with SAHA, a histone deacetylase inhibitor. It arrests cell cycling at the G₁/S phase, reduces senescence in primary human mesenchymal cells, and significantly increases mitochondrial density in murine C2C12 myoblasts.

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

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