

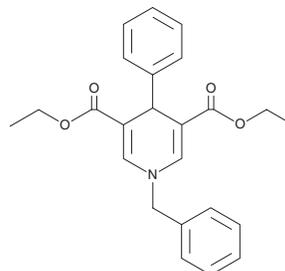
PRODUCT INFORMATION



BML-278

Item No. 20209

CAS Registry No.: 120533-76-8
Formal Name: 1,4-dihydro-4-phenyl-1-(phenylmethyl)-3,5-pyridinedicarboxylic acid, 3,5-diethyl ester
MF: C₂₄H₂₅NO₄
FW: 391.5
Purity: ≥95%
UV/Vis.: λ_{max}: 226, 368 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

BML-278 is supplied as a crystalline solid. A stock solution may be made by dissolving the BML-278 in the solvent of choice, which should be purged with an inert gas. BML-278 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of BML-278 in these solvents is approximately 3 and 12.5 mg/ml, respectively.

BML-278 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BML-278 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. BML-278 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

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.¹ It less potently activates SIRT2 and SIRT3 (EC₁₅₀s = 25 and 50 μM, respectively).¹ BML-278 induces hypoacetylation on α-tubulin in U937 cells that are pretreated with SAHA (Item No. 10009929), 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.¹

Reference

1. Mai, A., Valente, S., Meade, S., *et al.* Study of 1,4-dihydropyridine structural scaffold: Discovery of novel sirtuin activators and inhibitors. *J. Med. Chem.* **52**(17), 5496-5504 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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