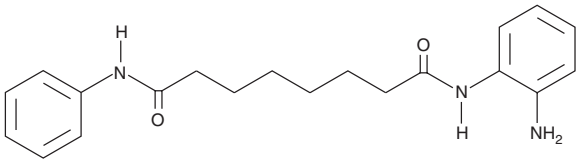
PRODUCT INFORMATION

BML-210

Item No. 10005019

CAS Registry No.:	537034-17-6
Formal Name:	N-(2-aminophenyl)-N'-phenyl-octanediamide
Synonyms:	N-phenyl-N'-(2-Aminophenyl) hexamethylenediamide, CAY10433
MF:	$C_{20}H_{25}N_3O_2$
FW:	339.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 241 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-210 is supplied as a crystalline solid. A stock solution may be made by dissolving the BML-210 in an organic solvent purged with an inert gas. BML-210 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of BML-210 in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

BML-210 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BML-210 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BML-210 has a solubility of 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Inhibition of histone deacetylase (HDAC) enzymes by compounds such as trichostatin A can have wide ranging effects in cancer, cell differentiation, and other aspects of gene expression regulation.[1] BML-210 is a small molecule inhibitor of HDAC with an IC_{50} value of 30 µM when tested in HeLa cell nuclear extracts using 200 µM acetylated fluorometric substrate (substrate available in Cayman's HDAC Activity and Inhibitor Screening Assay Kits - Item Nos. 10011563 and 10011564). BML-210 also inhibits the deacetylation of the transcription factor FOXO3 by mammalian SIRT1 in cells oxidatively stressed by hydrogen peroxide.[2]

References

1. Yoshida, M., Kijima, M., Akita, M., *et al.* Potent and specific inhibition of mammalian histone deacetylase both *in vivo* and *in vitro* by trichostatin A. *J. Biol. Chem.* **265(28)**, 17174-17179 (1990).
2. Johnson, J. Personal Communication. (2007).

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