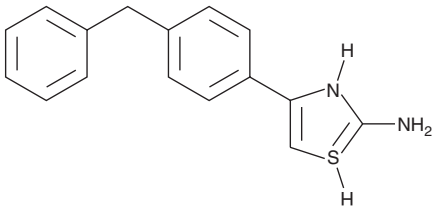
PRODUCT INFORMATION

ARM1

Item No. 15865

CAS Registry No.:	68729-05-5
Formal Name:	4-[4-(phenylmethyl)phenyl]-2-thiazolamine
MF:	$C_{16}H_{16}N_2S$
FW:	268.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 236, 285, 344 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

ARM1 is supplied as a crystalline solid. A stock solution may be made by dissolving the ARM1 in the solvent of choice, which should be purged with an inert gas. ARM1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ARM1 in these solvents is approximately 1, 10, and 15 mg/ml, respectively.

ARM1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ARM1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ARM1 has a solubility of approximately 0.1 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Leukotriene A_4 (LTA_4) hydrolase/aminopeptidase is a bifunctional zinc metalloenzyme that both catalyzes the synthesis of LTB_4 (Item No. 20110) from LTA_4 and cleaves the chemotactic peptide Pro-Gly-Pro.[1,2] ARM1 is a thiazolamine that inhibits LTB_4 synthesis in human neutrophils (IC_{50} = ~0.5 µM) and conversion of LTA_4 to LTB_4 by purified LTA_4 hydrolase (K_i = 2.3 µM).[3] ARM1 does not significantly affect the hydrolysis of Pro-Gly-Pro by LTA_4 hydrolase.[3]

References

1. Haeggström, J.Z. Leukotriene A_4 hydrolase/aminopeptidase, the gatekeeper of chemotactic leukotriene B_4 biosynthesis. *J. Biol. Chem.* **279(49)**, 50639-50642 (2004).
2. Snelgrove, R.J., Jackson, P.L., Hardison, M.T., *et al.* A critical role for LTA_4H in limiting chronic pulmonary neutrophilic inflammation. *Science* **330**, 90-94 (2010).
3. Stsiapanava, A., Olsson, U., Wan, M., *et al.* Binding of Pro-Gly-Pro at the active site of leukotriene A_4 hydrolase/aminopeptidase and development of an epoxide hydrolase selective inhibitor. *Proc. Natl. Acad. Sci. USA* **111(11)**, 4227-4232 (2014).

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