

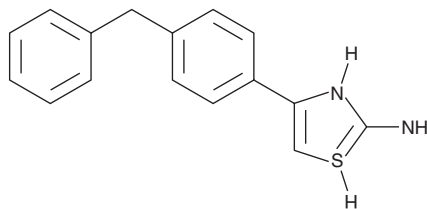
# PRODUCT INFORMATION



## ARM1

Item No. 15865

**CAS Registry No.:** 68729-05-5  
**Formal Name:** 4-[4-(phenylmethyl)phenyl]-2-thiazolamine  
**MF:** C<sub>16</sub>H<sub>16</sub>N<sub>2</sub>S  
**FW:** 268.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 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<sub>4</sub> (LTA<sub>4</sub>) hydrolase/aminopeptidase is a bifunctional zinc metalloenzyme that both catalyzes the synthesis of LTB<sub>4</sub> (Item No. 20110) from LTA<sub>4</sub> and cleaves the chemotactic peptide Pro-Gly-Pro.<sup>1,2</sup> ARM1 is a thiazolamine that inhibits LTB<sub>4</sub> synthesis in human neutrophils (IC<sub>50</sub> = ~0.5 μM) and conversion of LTA<sub>4</sub> to LTB<sub>4</sub> by purified LTA<sub>4</sub> hydrolase (K<sub>i</sub> = 2.3 μM).<sup>3</sup> ARM1 does not significantly affect the hydrolysis of Pro-Gly-Pro by LTA<sub>4</sub> hydrolase.<sup>3</sup>

### References

1. Haeggström, J.Z. Leukotriene A<sub>4</sub> hydrolase/aminopeptidase, the gatekeeper of chemotactic leukotriene B<sub>4</sub> 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<sub>4</sub>H 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<sub>4</sub> hydrolase/aminopeptidase and development of an epoxide hydrolase selective inhibitor. *Proc. Natl. Acad. Sci. USA* **111**(11), 4227-4232 (2014).

#### 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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