

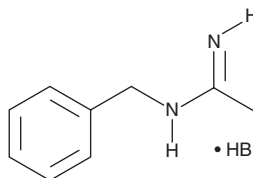
PRODUCT INFORMATION



N-Benzylacetamidine (hydrobromide)

Item No. 13570

CAS Registry No.: 186545-76-6
Formal Name: N-(phenylmethyl)-ethanimidamide, monohydrobromide
MF: C₉H₁₂N₂ • HBr
FW: 229.1
Purity: ≥98%
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

N-Benzylacetamidine (hydrobromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the N-benzylacetamidine (hydrobromide) in the solvent of choice, which should be purged with an inert gas. N-Benzylacetamidine (hydrobromide) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of N-benzylacetamidine (hydrobromide) in these solvents is approximately 25, 15, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of N-benzylacetamidine (hydrobromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N-benzylacetamidine (hydrobromide) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Of the different types of nitric oxide synthases (NOS), the inducible (iNOS) form contributes to inflammation and immune response while the constitutively-expressed endothelial (eNOS) enzyme plays important roles in regulating vascular tone. N-Benzylacetamidine is a potent inhibitor of iNOS (IC₅₀ = 0.20 μM), with over 1,000-fold selectivity compared to eNOS (IC₅₀ = 350 μM).¹

Reference

1. Maccallini, C., Patrino, A., Besker, N., *et al.* Synthesis, biological evaluation, and docking studies of N-substituted acetamidines as selective inhibitors of inducible nitric oxide synthase. *J. Med. Chem.* **52(5)**, 1481-1485 (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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