

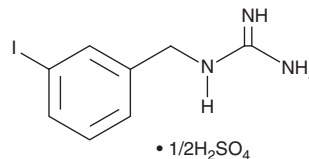
PRODUCT INFORMATION



m-Iodobenzylguanidine (hemisulfate)

Item No. 19998

CAS Registry No.: 87862-25-7
Formal Name: N-[(3-iodophenyl)methyl]-guanidine, hemisulfate
Synonyms: *meta*-Iodobenzylguanidine, MIBG
MF: C₈H₁₀IN₃ • 1/2H₂SO₄
FW: 324.1
Purity: ≥98%
UV/Vis.: λ_{max}: 231 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

m-Iodobenzylguanidine (MIBG) is supplied as a crystalline solid. A stock solution may be made by dissolving the MIBG in the solvent of choice. MIBG is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 2 mg/ml.

MIBG is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MIBG should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MIBG has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MIBG is an analogue of norepinephrine with anticancer activity.¹ It inhibits cell growth in a panel of human and mouse leukemia, fibrosarcoma, melanoma, and neuroblastoma cell lines when used at a concentration of 20 µg/ml and reduces clonogenic survival of L1210 leukemia cells in a concentration-dependent manner. MIBG increases survival in N₁E155 and L1210 mouse xenograft models when administered at doses of 40 and 20 mg/kg, respectively. It selectively accumulates in chromaffin tissues and tumors and formulations containing radiolabeled forms of MIBG have been used as imaging agents in the diagnosis and treatment of neuroendocrine tumors.² MIBG also inhibits ADP-ribose linkage to membrane proteins in turkey erythrocyte membranes.

References

1. Smets, L.A., Bout, B., and Wisse, J. Cytotoxic and antitumor effects of the norepinephrine analogue *meta*-iodo-benzylguanidine (MIBG). *Cancer Chemother. Pharmacol.* **21(1)**, 9-13 (1988).
2. Loesberg, C., van Rooij, H., and Smets, L.A. *Meta*-iodobenzylguanidine (MIBG), a novel high-affinity substrate for cholera toxin that interferes with cellular mono(ADP-ribosylation). *Biochim. Biophys. Acta* **1037(1)**, 92-99 (1990).

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.

WARRANTY AND LIMITATION OF REMEDY

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