

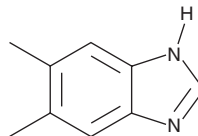
PRODUCT INFORMATION



5,6-Dimethylbenzimidazole

Item No. 36437

CAS Registry No.: 582-60-5
Formal Name: 5,6-dimethyl-1H-benzimidazole
Synonyms: Dimedazol, NSC 68316
MF: C₉H₁₀N₂
FW: 146.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

5,6-Dimethylbenzimidazole is supplied as a solid. A stock solution may be made by dissolving the 5,6-dimethylbenzimidazole in the solvent of choice, which should be purged with an inert gas. 5,6-Dimethylbenzimidazole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 5,6-dimethylbenzimidazole in these solvents is approximately 25 mg/ml.

Description

5,6-Dimethylbenzimidazole is a dimethylbenzimidazole that has been found in *S. meliloti* and is an intermediate in the biosynthesis of the corrin macrocycle vitamin B₁₂ (Item No. 18425).¹ It is formed from the flavin coenzyme riboflavin 5'-monophosphate (Item No. 18167) by the oxidoreductase BluB in *S. meliloti*. 5,6-Dimethylbenzimidazole forms the axial region of vitamin B₁₂ and chelates the central cobalt.

Reference

1. Taga, M.E., Larsen, N.A., Howard-Jones, A.R., *et al.* BluB cannibalizes flavin to form the lower ligand of vitamin B₁₂. *Nature* **446**(7134), 449-453 (2007).

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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