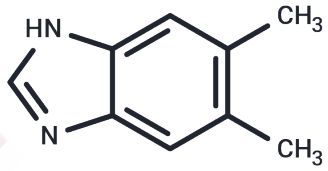
Data Sheet (Cat.No.T4824)

TargetMol

5,6-Dimethyl-1H-benzo[d]imidazole

Chemical Properties



CAS No. : 582-60-5

Formula: C9H10N2

Molecular Weight: 146.19

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	5,6-Dimethyl-1H-benzo[d]imidazole (5,6-Dimethylbenzimidazole) is an intermediate in Riboflavin metabolism and is the penultimate step in the synthesis of alpha-Ribazole. It is converted from Riboflavin and subsequently transformed into N1-(5-Phospho-alpha-D-ribosyl)-5,6-dimethylbenzimidazole by the enzyme nicotinate-nucleotide--dimethylbenzimidazole phosphoribosyltransferase (EC 2.4.2.21).
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	DMSO: 45 mg/mL (307.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (13.68 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.8404 mL	34.2021 mL	68.4041 mL
5 mM	1.3681 mL	6.8404 mL	13.6808 mL
10 mM	0.684 mL	3.4202 mL	6.8404 mL
50 mM	0.1368 mL	0.684 mL	1.3681 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sreekumar A , Poisson L M , Rajendiran T M , et al. Corrigendum: Metabolomic profiles delineate potential role for sarcosine in prostate cancer progression[J]. Nature, 2009, 457(7231):910-914.