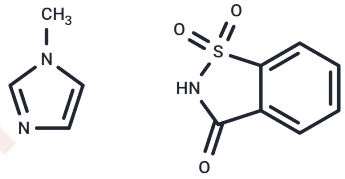
Data Sheet (Cat.No.T6974)

TargetMol

Saccharin 1-methylimidazole

Chemical Properties



CAS No. : 482333-74-4

Formula: C7H5NO3S·C4H6N2

Molecular Weight: 265.29

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	Saccharin 1-methylimidazole (SMI) is a general-purpose activator used for DNA and RNA synthesis.
Targets(IC50)	DNA/RNA Synthesis
In vitro	Exposure to various concentrations of distinct promoters, including phenobarbital and the calcium and sodium salts of saccharin (22, 23, 25, 29, 38), induces calcium-deprived T51B cells to commence DNA synthesis as swiftly and as efficiently, or nearly as efficiently, as when the extracellular calcium concentration is increased to 1.25 mM.

Solubility Information

Solubility	DMSO: 6 mg/mL (22.62 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: 1 mg/mL (3.77 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	3.7695 mL	18.8473 mL	37.6946 mL
5 mM	0.7539 mL	3.7695 mL	7.5389 mL
10 mM	0.3769 mL	1.8847 mL	3.7695 mL
50 mM	0.0754 mL	0.3769 mL	0.7539 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

Boynton AL, et al. Stimulation of DNA synthesis in calcium-deprived T51B liver cells by the tumor promoters phenobarbital, saccharin, and 12-O-tetradecanoylphorbol-13-acetate. Cancer Res. 1980 Dec;40(12):4541-5.