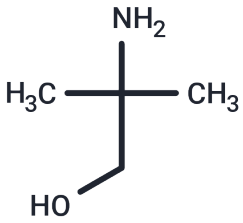
Data Sheet (Cat.No.TSH-00015)

TargetMol

2-Amino-2-methyl-1-propanol

Chemical Properties



CAS No. : 124-68-5

Formula: C4H11NO

Molecular Weight: 89.14

Storage: Keep away from direct sunlight
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	2-Amino-2-methyl-1-propanol (AMP) is an emulsifier, pH buffer, and surfactant used to prepare solutions with a pH of 8.7–10.4, exhibiting inhibitory effects against Plasmodium falciparum.
Targets(IC50)	Parasite
In vivo	**Methods**: Rats were orally administered 2-Amino-2-methyl-1-propanol at doses ranging from 1100 to 1700mg/kg for 30 consecutive days. **Results**: Some rats exhibited elevated serum levels of SGPT (serum glutamate pyruvate transaminase) and OCT (ornithine carbamoyltransferase), but no significant gross pathological or histopathological changes were observed.[4]

Solubility Information

Solubility	DMSO: 80 mg/mL (897.46 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: 5 mg/mL (56.09 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	11.2183 mL	56.0915 mL	112.1831 mL
5 mM	2.2437 mL	11.2183 mL	22.4366 mL
10 mM	1.1218 mL	5.6092 mL	11.2183 mL
50 mM	0.2244 mL	1.1218 mL	2.2437 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

Hong NS, et al. Rapid and accurate determination of deoxyribonucleoside monophosphates from DNA using micellar electrokinetic chromatography with a cationic surfactant additive. Anal Bioanal Chem. 2011 Jun;400(7):2131-40.

Zhang P, et al. Regeneration of 2-Amino-2-methyl-1-propanol used for carbon dioxide absorption. J Environ Sci (China). 2008;20(1):39-44.

Liu C, et al. Inhibiting effect of 2-Amino-2-methyl-1-propanol on gelatinous product formation in non-aqueous CO2 absorbents: experimental study and molecular understanding. Chemical Engineering Journal, 2024, 481: 148545.

Garnick L, et al. Dose and exposure route analyses inform relationships between liver steatosis and 2-Amino-2-methyl-1-propanol: Implications for hazard characterization. J Appl Toxicol. 2022 Dec;42(12):1873-1889.