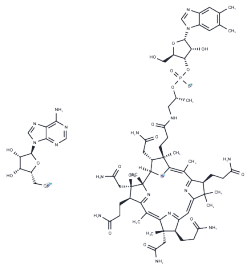
Data Sheet (Cat.No.T14128)

TargetMol

Adenosylcobalamin

Chemical Properties



CAS No. : 13870-90-1

Formula: C72H100CoN18O17P

Molecular Weight: 1579.58

Storage: Keep away from direct sunlight,Keep away from moisture
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	Adenosylcobalamin (AdoCbl) is a biologically active form of vitamin B12 .It is a cofactor for methylmalonyl CoA mutase. It belongs to the corrinoid group of compounds, which contain a corrin macrocycle, and is produced only by certain bacteria and archaea. It is a cofactor for various enzymes including mutases, eliminases, aminomutases, and a reductase.
Targets(IC50)	Endogenous Metabolite
In vitro	Adenosylcobalamin acts as the cofactor for a group of enzymes that catalyze unusual rearrangement or elimination reactions[1].

Solubility Information

Solubility	H2O: 4 mg/mL (2.53 mM),Sonication is recommended. DMSO: 41 mg/mL (25.96 mM) (< 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 (1.27 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	0.6331 mL	3.1654 mL	6.3308 mL
5 mM	0.1266 mL	0.6331 mL	1.2662 mL
10 mM	0.0633 mL	0.3165 mL	0.6331 mL
50 mM	0.0127 mL	0.0633 mL	0.1266 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

Kumudha A, et al. Characterization of vitamin B12 in Dunaliella salina. J Food Sci Technol. 2016 Jan;53(1):888-94.
Marsh EN, et al. Adenosylcobalamin enzymes: Theory and experiment begin to converge. Biochim Biophys Acta. 2012 Nov;1824(11):1154-64.