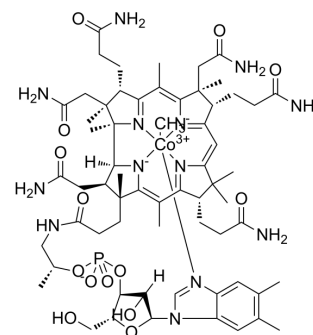


## Methylcobalamin

Cat. No.:	HY-B0586
CAS No.:	13422-55-4
Molecular Formula:	C <sub>63</sub> H <sub>91</sub> CoN <sub>13</sub> O <sub>14</sub> P
Molecular Weight:	1344.38
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (37.19 mM; Need ultrasonic) H <sub>2</sub> O : 5 mg/mL (3.72 mM; Need ultrasonic)				
	Preparing Stock Solutions	<div>Solvent Concentration</div> <div>Mass</div>	1 mg	5 mg	10 mg
		1 mM	0.7438 mL	3.7192 mL	7.4384 mL
		5 mM	0.1488 mL	0.7438 mL	1.4877 mL
		10 mM	0.0744 mL	0.3719 mL	0.7438 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 18.75 mg/mL (13.95 mM); Clear solution; Need ultrasonic				
	2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (1.86 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (1.86 mM); Clear solution				
	4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (1.86 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	Methylcobalamin (CH3-B12), a cobalamin, is a form of vitamin B12.
IC <sub>50</sub> & Target	Human Endogenous Metabolite
In Vitro	Methylcobalamin (CH3-B12) is a cobalamin, a form of vitamin B12. It differs from cyanocobalamin in that the cyanide is replaced by a methyl group. Methylcobalamin (CH3-B12) features an octahedral cobalt(III) centre. Methylcobalamin (CH3-

B12) can be obtained as bright red crystals. From the perspective of coordination chemistry, Methylcobalamin (CH<sub>3</sub>-B12) is notable as a rare example of a compound that contains metal-alkyl bonds. Methylcobalamin (CH<sub>3</sub>-B12) is equivalent physiologically to vitamin B12, and can be used to prevent or treat pathology arising from a lack of vitamin B12 (vitamin B12 deficiency), such as pernicious anemia. Methylcobalamin (CH<sub>3</sub>-B12) is also used in the treatment of peripheral neuropathy, diabetic neuropathy, and as a preliminary treatment for amyotrophic lateral sclerosis. From Wikipedia.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- J Cell Biochem. 2019 Feb 21.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. <http://en.wikipedia.org/wiki/Methylcobalamin>

**Caution: Product has not been fully validated for medical applications. For research use only.**

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