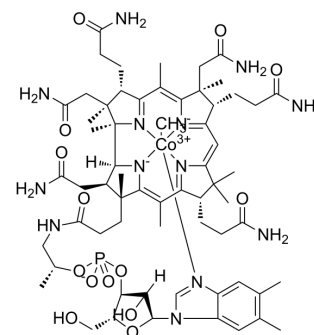


Methylcobalamin

Cat. No.:	HY-B0586
CAS No.:	13422-55-4
Molecular Formula:	C ₆₃ H ₉₁ CoN ₁₃ O ₁₄ 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)
H₂O : 5 mg/mL (3.72 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	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

- Add each solvent one by one: PBS
Solubility: 18.75 mg/mL (13.95 mM); Clear solution; Need ultrasonic
- 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
- 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
- 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.

IC₅₀ & 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 (CH₃-B12) is notable as a rare example of a compound that contains metal-alkyl bonds. Methylcobalamin (CH₃-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 (CH₃-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

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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