

# PRODUCT INFORMATION



## Hydroxocobalamin

Item No. 24099

**CAS Registry No.:** 13422-51-0  
**Formal Name:** co-hydroxy-cobinamide, f-(dihydrogen phosphate), inner salt, 3'-ester with (5,6-dimethyl-1- $\alpha$ -D-ribofuranosyl-1H-benzimidazole- $\kappa$ N<sup>3</sup>)

**Synonyms:** Hydroxycobalamin, Vitamin B<sub>12a</sub>

**MF:** C<sub>62</sub>H<sub>89</sub>CoN<sub>13</sub>O<sub>15</sub>P

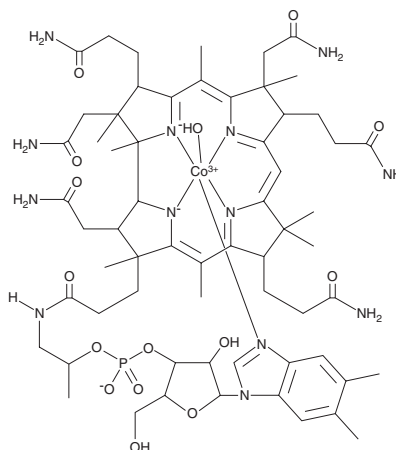
**FW:** 1,346.4

**Purity:**  $\geq 95\%$

**Supplied as:** A solid

**Storage:** -20°C

**Stability:**  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Hydroxocobalamin is supplied as a solid. A stock solution may be made by dissolving the hydroxocobalamin in the solvent of choice, which should be purged with an inert gas. Hydroxocobalamin is slightly soluble in methanol and water. We do not recommend storing the aqueous solution for more than one day.

### Description

Hydroxocobalamin is a biologically active form of vitamin B<sub>12</sub> (Item No. 18425).<sup>1</sup> It increases the number of red blood cells 2.5-fold over control in a mouse model of anemia when administered at a dose of 2  $\mu$ g per day for 4 days.<sup>2</sup> Hydroxocobalamin is also efficacious in animal models of cyanide poisoning.<sup>1</sup> Formulations containing hydroxocobalamin have been used in the treatment of vitamin B<sub>12</sub> deficiency and cyanide poisoning.

### References

1. Thompson, J.P. and Marrs, T.C. Hydroxocobalamin in cyanide poisoning. *Clin. Toxicol. (Phila)* **50**(10), 875-885 (2012).
2. Vijayaraghavan, P.K. and Dunn, M.S. Effect of vitamins B<sub>12</sub>, B<sub>12a</sub> and B<sub>12b</sub> on red blood cell counts in experimental anemia in mice. *Arch. Biochem. Biophys.* **31**(2), 248-250 (1951).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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