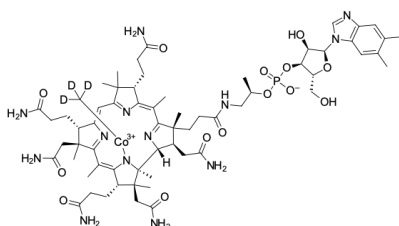


## Methylcobalamin-d3

<http://www.lumiprobe.com/p/methylcobalamin-d3>

Methylcobalamin-d3, also known as mecobalamin-d3, is a deuterated methylcobalamin and is intended for use as an internal standard for the quantification of methylcobalamin by GC- or LC-MS. Methylcobalamin, one of the biologically active forms of vitamin B12, differs from cyanocobalamin in that the cyano group at the cobalt is replaced with a methyl group.

Methylcobalamin serves as an intermediate in the enzymatic reaction of methionine biosynthesis by methionine synthase. Methylcobalamin is a form of vitamin B12 that is found in higher amounts around neurons. It plays a role in biochemical reactions that increase the production of DNA, RNA, and proteins. Methylcobalamin also helps regenerate nerves and promotes the synthesis of lecithin, which aids in the repair of damaged nerves.



**Structure of Methylcobalamin-d3**

### General properties

Appearance: red powder

Molecular weight: 1347.40

Molecular formula:  $C_{63}H_{88}D_3CoN_{13}O_{14}P$

Quality control: NMR  $^1H$  and HPLC-MS (95+ %, D: 98+ %)

Storage conditions: 24 months after receipt at  $-20^{\circ}C$  in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

Legal statement: This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.