Adresse:
Talstr. 7
01099 Dresden

Kontakt:
Telefon: 015773998502
E-Mail: pdf@energyvital.de

Rechtliches:
Amtsgericht Dresden
USt-ID-Nr.: DE352285297

## Overview

# Vitamin B12 2000 mcg, 100 lozenges

**Product number:** VS2498




### Price

| Quantity | Unit price | Base price |
|---|---|---|
| **To 1** | €24.95 | €1,247.50 / 1 Kilogramm |
| **To 4** | €23.70 | €1,185.00 / 1 Kilogramm |
| **From 5** | €22.45 | €1,122.50 / 1 Kilogramm |

Prices incl. VAT plus shipping costs

## Description

### Vitamin B12 in its best forms Methylcobalamin and Adenosylcobalamin

These are the forms in which vitamin B12 occurs in food and is used by the body. Cyanocobalamin, a synthetic form of vitamin B12 that does not occur in nature, is used in many other products.

#### Benefits of biologically active B12

Adresse:
Talstr. 7
01099 Dresden

Kontakt:
Telefon: 015773998502
E-Mail: pdf@energyvital.de

Rechtliches:
Amtsgericht Dresden
USt-ID-Nr.: DE352285297

Under oxidative stress, supplementation with a reduced form of vitamin B12 (such as methylcobalamin) may be more advantageous than using an oxidised form (such as cyanocobalamin). Studies also suggest that vitamin B12 levels rise more after intake of biologically active vitamin B12 than after cyanocobalamin. More vitamin B12 is stored in the liver while less is excreted in the urine (longer half-life). For this reason, the bioavailability is higher.

## Absorption of vitamin B12

Absorption of vitamin B12 from food is a complex process. In the stomach, vitamin B12 is separated from dietary proteins and temporarily bound to transport proteins (also called R-proteins or transcobalamin I) that occur in saliva and the mucus of the oesophagus and stomach. In the duodenum, proteases from the pancreas (digestive enzymes produced there) cleave vitamin B12 from the R-proteins and bind it to the intrinsic factor (IF), a special protein produced in the stomach that is required for vitamin B12 uptake. In the terminal section of the ileum, vitamin B12 is taken up into enterocytes (intestinal cells) by active transport after binding to specific receptors, provided the vitamin is bound to IF. In the enterocytes IF is degraded and the released vitamin B12 is bound to the transport proteins transcobalamin I and II. This complex is then released into the blood plasma.

## Utilisation of vitamin B12 by the body

20–25% of vitamin B12 in the blood is bound to transcobalamin II. Only the vitamin B12 bound to this protein is taken up by body cells. Transcobalamin II releases vitamin B12 in the cell’s lysosome and converts it into methyl- or adenosylcobalamin (lysosomes are vesicles in the cytoplasm that break down certain substances for reuse or excretion). Methylcobalamin is mainly needed in the blood plasma, cytoplasm and cerebrospinal fluid, whereas adenosylcobalamin is required in tissues and in the mitochondria.

As methylcobalamin (in the cytoplasm), vitamin B12 acts as a cofactor for the conversion of homocysteine to methionine by the enzyme methionine synthase (see Figure 2). Methylcobalamin donates its methyl group to homocysteine, while the remaining cobalamin receives a new methyl group from 5-methyltetrahydrofolate. The cycle then begins again. This process is also referred to as (re-)methylation. Methionine’s main use is in the formation of S-adenosylmethionine (SAMe), the principal methyl donor involved in the synthesis of DNA, RNA, myelin, phospholipids, proteins and neurotransmitters such as serotonin and dopamine. In this way, methylcobalamin can contribute to normal cell division and the formation of red blood cells. It is also necessary for normal brain and nerve function and therefore has a positive effect on memory, concentration and mood. Vitamin B12 also affects the activation of certain immune cells and thus contributes to normal immune function, as it is involved in DNA and protein synthesis.

Vitamin B12 occurs as adenosylcobalamin (in the mitochondria) and is involved in the conversion of methylmalonyl-CoA to succinyl-CoA (see Figure 2). Succinyl-CoA plays a role in the citric acid cycle, a series of biochemical reactions that support cellular energy metabolism. In this way vitamin B12 contributes to energy levels and can help reduce fatigue.

## Active and passive absorption

Dietary absorption of vitamin B12 is very efficient, but the absorption rate decreases rapidly as B12 intake increases because receptor saturation occurs. With an intake of a few micrograms of vitamin B12, the absorption rate is between 25 and 65%, whereas at 25 mcg it is only about 5%. If uptake is not IF-bound, it occurs by passive diffusion (along the entire gastrointestinal tract). However, this type of absorption is not very effective. If IF is absent, only about 1% of the vitamin B12 is absorbed. In addition, vitamin B12 that is not IF-bound is broken down more quickly by proteolytic enzymes and gut bacteria. Therefore, normal production and function of IF are very important for active vitamin B12 absorption.

In certain situations it may be necessary to use a high-dose vitamin B12 preparation (with a dose of 500–2000 mcg) for additional support. A substantial proportion of this can be absorbed by passive diffusion, thereby ensuring an

Adresse:
Talstr. 7
01099 Dresden

Kontakt:
Telefon: 015773998502
E-Mail: pdf@energyvital.de

Rechtliches:
Amtsgericht Dresden
USt-ID-Nr.: DE352285297

adequate supply of B12. It is advisable to take vitamin B12 together with folate and other B vitamins or as part of a comprehensive multivitamin preparation.

## Nutritional properties

- Vitamin B12 contributes to normal energy metabolism and has a function in cell division.
- Vitamin B12 contributes to the normal function of the nervous system and to normal psychological function.
- Vitamin B12 and folic acid contribute to normal homocysteine metabolism and help reduce tiredness and fatigue.
- Vitamin B12 contributes to normal formation of red blood cells and, together with folic acid, to the normal function of the immune system.

## Nutritional information

| Micronutrients | per daily portion 1 lozenge |
|---|---|
| Vitamin B12 | 2000 µg (80000 %*) |

*Reference intake according to Regulation (EU) No. 1169/2011

### Ingredients

Sweeteners (mannitol and xylitol), binder (hydroxypropylcellulose), anti-caking agent (magnesium salts of edible fatty acids), cherry flavour, acidity regulator (citric acid), methylcobalamin, adenosylcobalamin.

### Recommended use

Allow 1 lozenge to dissolve under the tongue once daily. Do not exceed the stated recommended daily intake. Contains sweetener. May have a laxative effect if consumed in excess.

### Note

This product does not contain folate or vitamin B6, so using a multivitamin containing folate and B6 in combination with this B12 product remains possible.

### Storage instructions

Store in a cool, dry, dark place (do not refrigerate).

### Legal notice

Do not exceed the recommended daily intake. Food supplements are not a substitute for a balanced and varied diet and a healthy lifestyle. Keep out of reach of young children.

Adresse:
Talstr. 7
01099 Dresden

Kontakt:
Telefon: 015773998502
E-Mail: pdf@energyvital.de

Rechtliches:
Amtsgericht Dresden
USt-ID-Nr.: DE352285297

# Product information

| | |
|---|---|
| **Application:** | Immune system |
| **Dosage form:** | In vegan capsules. |
| **Micronutrients:** | Vitamin B12 |
| **Quality:** | Gluten-free, Lactose-free, Vegan |
| **Product type:** | Dietary supplements |

Erstellt am 24.11.2026. Dieses Dokument stellt kein Angebot dar. Es gelten die aktuellen Preise im Online-Shop.
All prices incl. VAT plus shipping costs and possible delivery charges, if not stated otherwise.