



## Vitamins B

The group of water-soluble B vitamins is widely monitored in dietary supplements and in food. They play an important role in cell metabolism and the synthesis of red blood cells. This application shows the HPLC separation of B1, B2, B3, B6 and B12 vitamins.

### Substance

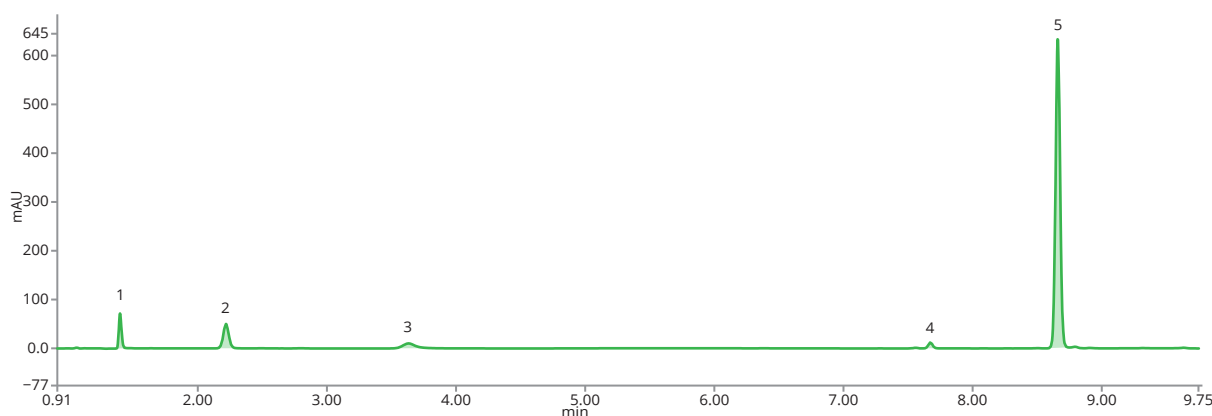
Thiamine (Vitamin B1), CAS Number 70-16-6

Pyridoxine (Vitamin B6), CAS Number 65-23-6

Nicotinamide (Vitamin B3, Niacinamide, NAM), CAS Number 98-92-0

Cyanocobalamin (Vitamin B12), CAS Number 68-19-9

Riboflavin (Vitamin B2), CAS Number 83-88-5



Standard on ARION® column

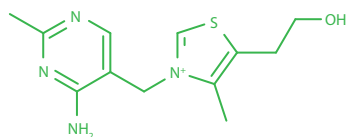
This application has been developed by WESSLING Hungary Kft.



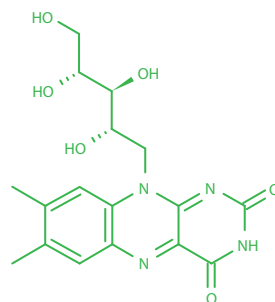
## Vitamins B

<b>Column</b>	ARION® Plus C18, 3 µm		
<b>Dimensions</b>	100 mm × 4.6 mm		
<b>Part number</b>	ARI-5720-II46		
<b>Mobile phase</b>	A: 0.0125 M phosphate buffer (pH 3.5) B: Methanol		
<b>Gradient elution</b>	<b>Time</b>	<b>A (%)</b>	<b>B (%)</b>
	0	95	5
	3	95	5
	10	30	70
	10.5	30	70
<b>Flow rate</b>	1.0 ml/min		
<b>Temperature</b>	40 °C		
<b>Injection volume</b>	5.0 µl		
<b>Detection</b>	UV @280 nm		
<b>Analytes</b>	<b>1. Thiamine (Vitamin B1)</b> <b>2. Pyridoxine (Vitamin B6)</b> <b>3. Nicotinamide (Vitamin B3, Niacinamide, NAM)</b> <b>4. Cyanocobolamin (Vitamin B12)</b> <b>5. Riboflavin (Vitamin B2)</b>		

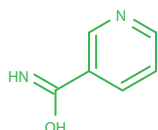
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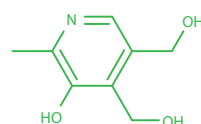
*Vitamin B1*



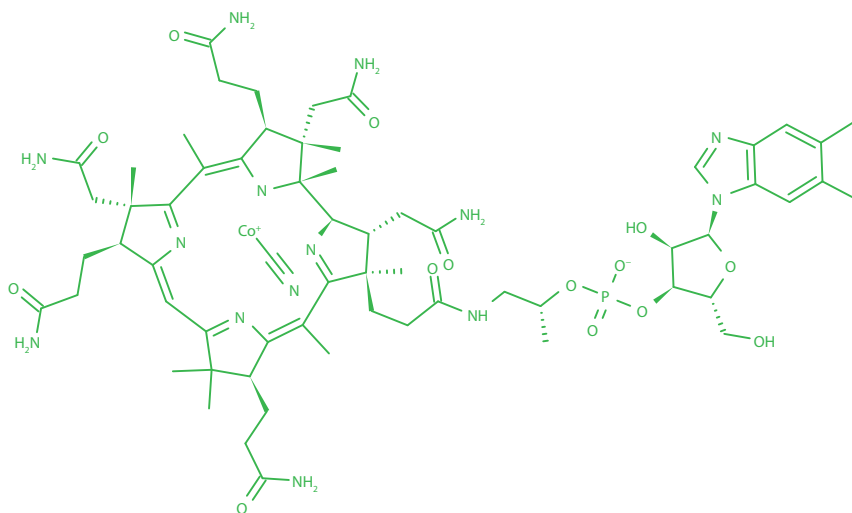
*Vitamin B2*



*Vitamin B3*



*Vitamin B6*



*Vitamin B12*