

The term "vitamin B2" covers three vitamins: riboflavin, flavin mononucleotide (FMN) and flavin adenine dinucleotide (FAD). FMN and FAD are the effective forms of vitamin B2 and are synthesised in vivo from riboflavin by phosphorylation. Vitamin B2 is important for energy production, enzyme functions as well as for the fatty acid and amino acid synthesis. The undersupply with vitamin B2 is mostly attributed to a general malnutrition. It is often seen in persons with risk factors such as alcohol problems, advanced age and extreme dietary habits. The RECIPE test kit features short time for analysis (easy sample preparation, short run time) and can be easily combined with test kits for the vitamins B1 and B6 (see combi kit, pages 68 - 69).

Vitamin Status

Vitamin B2 in Whole Blood

Test Data

Determination as FAD

Linearity:	20 - 500 µg/l
Recovery:	95 - 100 %
LOD:	10 µg/l
LLOQ:	20 µg/l
Intraassay precision:	3.8 %
Interassay precision:	4.0 %

HPLC Parameters

Pump:	isocratic pump, flow rate: 1.0 ml/min
Injection volume:	50 µl
Injection interval:	10 min
Fluorescence detector:	450 nm (exc.), 530 nm (em.)
HPLC-Thermostat:	40 °C

Sample Preparation

Extraction:

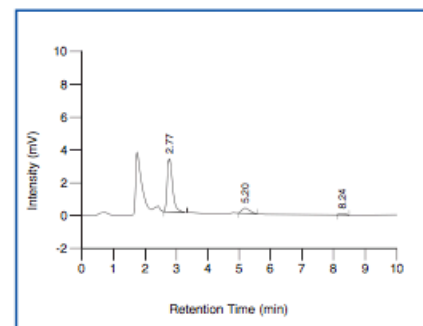
200 µl whole blood	300 µl Precipitant P
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- add 500 µl Stabilising Reagent S
- centrifuge

HPLC Analysis:

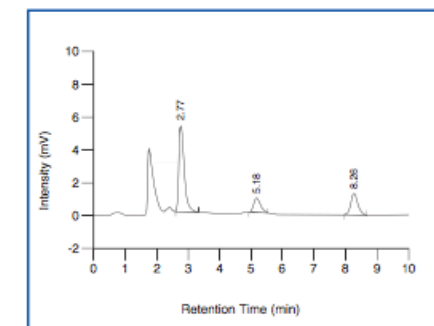
Inject 50 µl of the supernatant

ClinChek® Whole Blood Control, Level I



Flavin adenine dinucleotide: 2.77 min,
Flavin mononucleotide: 5.20 min,
Riboflavin: 8.24 min

ClinChek® Whole Blood Control, Level II



Flavin adenine dinucleotide: 2.77 min,
Flavin mononucleotide: 5.18 min,
Riboflavin: 8.26 min

Ordering Information

Order No.	Description	Quantity
25000	ClinRep® Complete Kit for Vitamin B2 in Whole Blood for 100 assays	1 pce.
Kit Components (order no. 25000):		
25010	Mobile Phase	1000 ml
25014	Test Solution, lyophil.	5 x 2 ml
25015	Reconstitution Solution R	10 ml
24513	Whole Blood Calibrator, lyophil.	5 x 2 ml
25020	Sample Preparation Vials	100 pcs.
25021	Precipitant P	30 ml
25022	Stabilising Reagent S	50 ml
	Manual	1 pce.
	Quick Reference	1 pce.
Start Accessories:		
27030	Analytical Column with test chromatogram	1 pce.
27032	Guard Column Holder incl. 1 Guard Column	1 pce.
Accessories:		
27033	Guard Column	5 pcs.
FK5810	PEEK-tubing (connection of prefilter and column)	1 pce.
FK5820	Stainless steel prefilter holder	1 pce.
FK5821	Replacement filter for stainless steel prefilter holder	10 pcs.
ClinChek® Controls:		
8874	Whole Blood Control, lyophil., Level I	10 x 2 ml
8875	Whole Blood Control, lyophil., Level II	10 x 2 ml
8876	Whole Blood Control, lyophil., Level I, II	2 x 5 x 2 ml

→ Quick sample preparation

→ Injection interval: 10 min

→ Combineable with B1 and B6 test kits