

Combined Vitamin B₁ and B₆ Assays by HPLC and UHPLC



VITAMIN PROFILING

CE-IVD
certified

- ▶ Internal Standard for Each Parameter
- ▶ High Sample Throughput
- ▶ Automated Methods Available

Combined Vitamin B₁ and B₆ Assays in Whole Blood

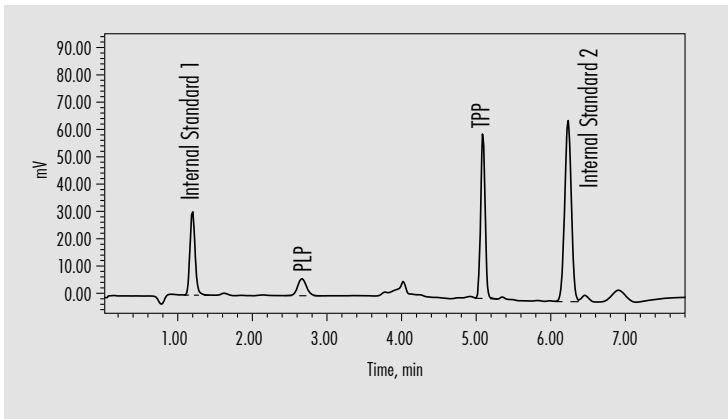
- ▶ Determination of the active forms of vitamin B₁ (TPP) and vitamin B₆ (PLP)
- ▶ Specific internal standard for each parameter
- ▶ CE-IVD certified solutions
- ▶ Assays available for any requirements:
 - Standard method or with pre-mixed tubes, for simplified manual sample preparation
 - UHPLC methods for short analysis time
 - Automated methods for high sample throughput

Assay no.	Automated Methods				
	52052	52052/Premix	52952/UHPLC	52752/F	52952/UHPLC/F
Method	HPLC	HPLC	UHPLC	HPLC	UHPLC
Analysis time	7-9 min	7-9 min	3 min	7-9 min	3 min
Characteristics	Standard method	Simplified sample preparation with pre-mixed tubes	Simplified sample preparation with pre-mixed tubes Short analysis time	HPLC method, automated	UHPLC method, automated Short analysis time
Limit of quantification (mg/l)	TPP: 2 PLP: 5	TPP: 2 PLP: 5	TPP: 5 PLP: 5	TPP: 7 PLP: 2	TPP: 4 PLP: 3
Linearity (mg/l)	TPP: up to 750 PLP: up to 500	TPP: up to 750 PLP: up to 500	TPP: up to 750 PLP: up to 500	TPP: up to 750 PLP: up to 500	TPP: up to 750 PLP: up to 500
Recovery	TPP: 92 % PLP: 88 %	TPP: 92 % PLP: 88 %	TPP: 91 % PLP: 92 %	TPP: 96 % PLP: 80 %	TPP: 96 % PLP: 80 %
Intraassay	CV < 2 %	CV < 3 %	CV < 4 %	CV < 3 %	CV < 4 %
Interassay	CV < 3 %	CV < 6 %	CV < 6 %	CV < 5 %	CV < 6 %

Complete assays for any laboratory – as well as calibrators and controls.



Technical Specifications

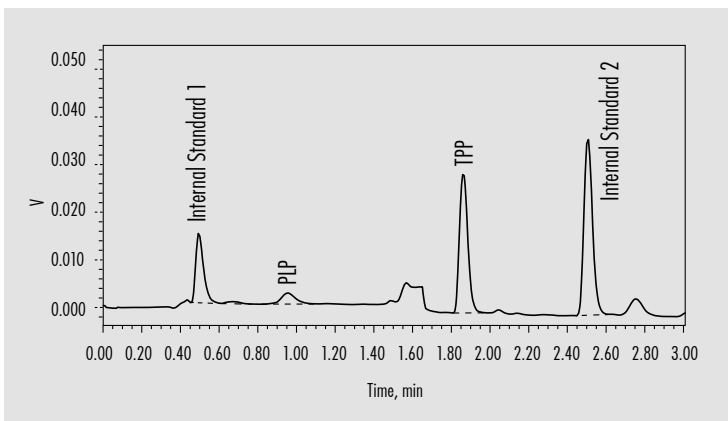


HPLC

Chromatogram of a patient sample (whole blood)

PLP: 15 µg/l, TPP: 39 µg/l

Measured with Chromsystems assay 52052/Premix



UHPLC

Chromatogram of a patient sample (whole blood)

PLP: 36 µg/l, TPP: 57 µg/l

Measured with Chromsystems assay 52952/UHPLC

Single Vitamin B₁ and B₆ Analysis

Kit No.	Parameter	Specimen	Method	Analysis Time
35000	Vitamin B ₁	Whole Blood	HPLC	< 6 min
31000/WB	Vitamin B ₆	Whole Blood	HPLC	< 8 min
31000/S	Vitamin B ₆	Plasma/Serum	HPLC	< 8 min

Calibrators and Controls (lyoph.)

Parameter	Specimen	Calibrators	Controls		
			Bi-Level (I+II)	Level I	Level II
Vitamins B ₁ /B ₆	Whole Blood	52003	0164	0165	0166
Vitamin B ₆	Plasma	36005	0031	0038	0039
Vitamin B ₆	Whole Blood	31003	0022	0023	0024
Vitamins B ₁ /B ₂	Whole Blood	37008	0033	0034	0035

Ordering Information

Order No.	Kits	52052	52052/ Premix	52952/ UHPLC	52752/F	52952/ UHPLC/F
Number of tests		100	100	1.000	960	960
Kit Components						
52001	Mobile Phase A, 1000 ml	•	•		•	
52022	Mobile Phase B, 1000 ml	•	•		•	
52911*	Mobile Phase A (for UHPLC), 1000 ml			•		•
52922*	Mobile Phase B (for UHPLC), 1000 ml			•		•
52003	Whole Blood Calibration Standard (lyoph.), 5 x 1 ml	•	•	•	•	•
52044	Internal Standard, 10 ml	•	•	•		
52005	Precipitation Reagent, 30 ml	•	•	•		
52006	Neutralisation Reagent, 25 ml	•				
52906	Pre-mixed Neutralisation Tubes, 100 pcs.		•	•		
52007	Derivatisation Reagent 1 (lyoph.), 2 x 0.3 ml	•	•	•		
52008	Derivatisation Reagent 2, 15 ml	•	•	•		
33005	Reaction Vials, amber coloured (light protection), 100 pcs.	•	•	•		
52744	Internal Standard Mix, 50 ml				•	•
52705	Extraction Reagent, 75 ml				•	•
52706	Prep Solution, 25 ml				•	•
52707	Finisher 1 (lyoph.), 5 x 0.25 ml				•	•
52708	Finisher 2, 50 ml				•	•
52709	Dilution Buffer, 100 ml				•	•
52057	96 Well Filter Plates, 5 pcs.				•	•
52058	Collection Plates, 10 pcs.				•	•
52059	Pierceable Adhesive Seals for 96 Well Plates, 5 pcs.				•	•
52100	HPLC Column, equilibrated, with test chromatogram, 1 pc.				•	
52110*	UHPLC Column, equilibrated, with test chromatogram, 1 pc.			•		•
Accessories						
52100	HPLC Column, equilibrated, with test chromatogram, 1 pc.	•	•			
15010	PEEK Prefilter Housing, 1 pc.	•	•		•	
15011	PEEK-encased Prefilters, 2 µm, 5 pcs.	•	•		•	
18001	Precolumn Cartridge Holder 4/10, 1 pc.	•	•		•	
18052	Precolumn Cartridge 4/10, 1 pc.	•	•		•	
15060	Prefilter Housing, 1 pc.			•		•
15061	Prefilter, 0.5 µm, 5 pcs.			•		•

* Mobile phases and analytical column for the UHPLC assays are available only as part of the kit.

These products are not available in all countries. Please contact your local Chromsystems sales representative for availability in your region.