

Coenzyme Q10 (CoQ10) plays an outstanding role in the energy production within the cell metabolism. In addition, CoQ10 is an important antioxidant and thus protects the cell from radical oxidation (oxidative stress). Lowered blood concentrations of CoQ10 seem to be connected with a number of affections, mainly cardiovascular diseases. The RECIPE ClinRep® Complete Kit allows for a reliable determination of CoQ10 in whole blood, plasma, and serum. After a quick sample preparation, the analytical chromatography is performed with an isocratic HPLC system and UV detection. For quality assurance reference materials (ClinTest® Test Solution, ClinCal® Plasma Calibrator and ClinChek® Plasma Controls) with excellent stability are available.

Oxidative Stress

Coenzyme Q10 in Whole Blood / Plasma / Serum

Test Data

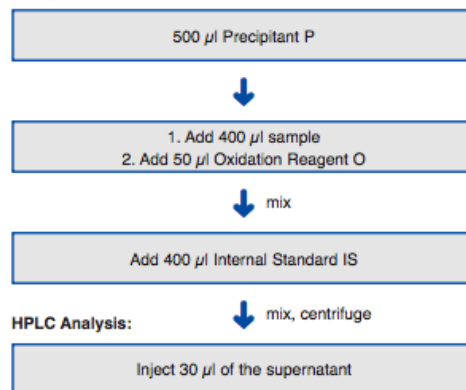
Linearity: 38.9 - 20000 µg/l
 Recovery: 94 - 108 %
 LOD: 19.5 µg/l
 LLOQ: 38.9 µg/l
 Intraassay precision: 3.4 %
 Interassay precision: 5.0 %

HPLC Parameters

Pump: isocratic pump, flow rate:
1.4 ml/min
 Injection volume: 30 µl
 Injection interval: 14 min
 UV-Detector: 275 nm
 HPLC-Thermostat: 30 °C

Sample Preparation

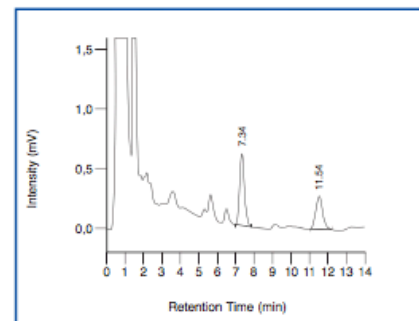
Precipitation:



HPLC Analysis:

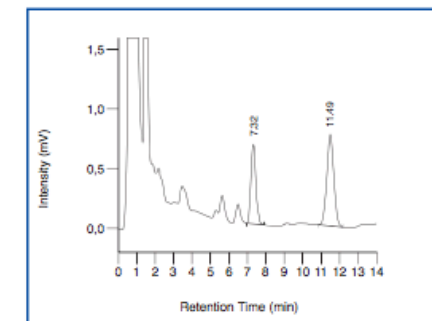
Inject 30 µl of the supernatant

ClinChek® Plasma Control, Level I



IS: 7.34 min, CoQ10: 11.54 min

ClinChek® Plasma Control, Level II



IS: 7.32 min, CoQ10: 11.49 min

Ordering Information

Order No.	Description	Quantity
31000	ClinRep® Complete Kit for Coenzyme Q10 in Whole Blood / Plasma / Serum for 100 assays	1 pce.
Kit Components (order no. 31000):		
31010	Mobile Phase	1000 ml
31012	Internal Standard IS	40 ml
31013	Plasma Calibrator, lyophil.	5 x 2 ml
31014	Test Solution	3 ml
31020	Sample Preparation Vials	100 pcs.
31021	Precipitant P	50 ml
31022	Oxidation Reagent O	5 ml
	Manual	1 pce.
	Quick Reference	1 pce.
Start Accessories:		
31030	Analytical Column with test chromatogram	1 pce.
31032	Guard Column Holder incl. 1 Guard Column	1 pce.
Accessories:		
31033	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:		
31080	Plasma Control, lyophil., Level I	10 x 2 ml
31081	Plasma Control, lyophil., Level II	10 x 2 ml
31082	Plasma Control, lyophil., Level I, II	2 x 5 x 2 ml

→ Reliable sample preparation

→ Reference materials with excellent stability available