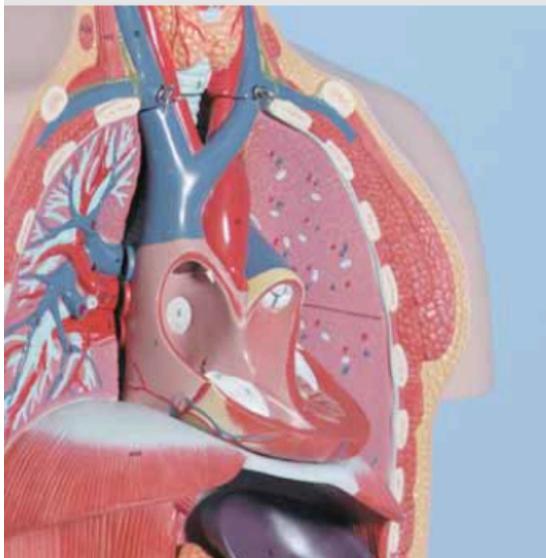


$\beta$ -Carotene belongs to the group of the so-called carotenoids. These compounds are part of the anti-oxidant defense system within the human organism and are protecting cells and tissues from oxidative damage (oxidative stress). All-trans- $\beta$ -carotene is the quantitatively most important carotenoid in our diet, in human blood and tissues. The RECIPE ClinRep® Complete Kit for  $\beta$ -carotene provides a unique chromatographical performance. Even the cis-isomers of  $\beta$ -carotene (9-cis- $\beta$ -carotene, 13-cis- $\beta$ -carotene) are base line separated. Prior to HPLC analysis a simple two-step sample preparation (precipitation, stabilisation) is required.



→ Simple two-step sample preparation

→ Excellent chromatographic performance (separation of cis isomers)

→ Injection interval: 10 min

## Oxidative Stress

# $\beta$ -Carotene in Plasma / Serum

### Test Data

On request

### HPLC Parameters

Pump: isocratic pump,  
flow rate: 1.1 ml/min

Injection volume: 100  $\mu$ l

Injection interval: 10 min

UV-Detector: 450 nm

HPLC-Thermostat: 30 °C

### Sample Preparation

Precipitation:

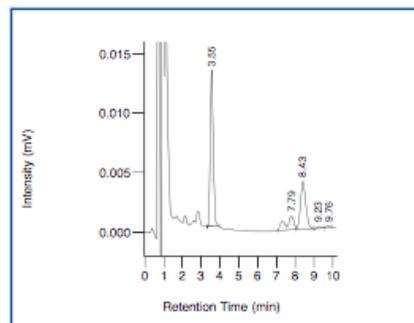
100 $\mu$ l sample	200 $\mu$ l Precipitant P (contains IS)	100 $\mu$ l Stabilising Reagent S
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↓ mix, centrifuge

HPLC Analysis:

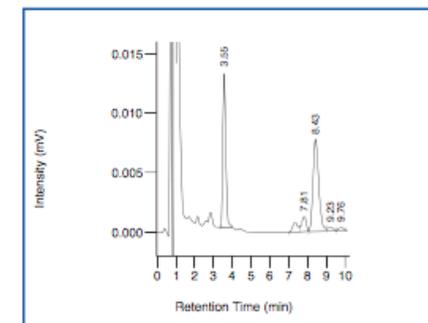
Inject 100  $\mu$ l

ClinChek® Plasma Control, Level I



IS: 3.55 min,  $\alpha$ -Carotene: 7.79 min, all-trans- $\beta$ -Carotene: 8.43 min, 9-cis- $\beta$ -Carotene: 9.23 min, 13-cis- $\beta$ -Carotene: 9.76 min

ClinChek® Plasma Control, Level II



IS: 3.55 min,  $\alpha$ -Carotene: 7.81 min, all-trans- $\beta$ -Carotene: 8.43 min, 9-cis- $\beta$ -Carotene: 9.23 min, 13-cis- $\beta$ -Carotene: 9.76 min

### Ordering Information

Order No.	Description	Quantity
30000	ClinRep® Complete Kit for $\beta$ -Carotene in Plasma / Serum for 100 assays	1 pce.
<b>Kit Components (order no. 30000):</b>		
30010	Mobile Phase	1000 ml
30012	Precipitant P with Internal Standard	20 ml
30013	Plasma Calibrator, lyophil.	5 x 0.5 ml
30014	Test Solution, lyophil.	3 ml
30020	Sample Preparation Vials	100 pcs.
30021	Stabilising Reagent S	10 ml
	Manual	1 pce.
	Quick Reference	1 pce.
<b>Start Accessories:</b>		
30030	Analytical Column with test chromatogram	1 pce.
<b>Accessories:</b>		
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.
<b>ClinChek® Controls:</b>		
30080	Plasma Control, lyophil., Level I	10 x 2 ml
30081	Plasma Control, lyophil., Level II	10 x 2 ml
30082	Plasma Control, lyophil., Level I, II	2 x 5 x 2 ml