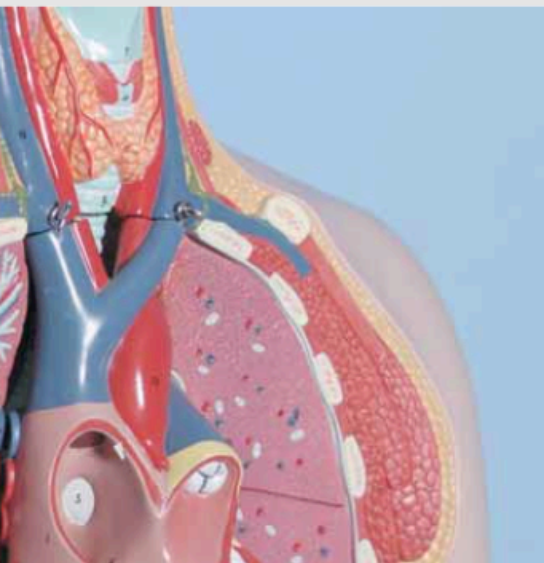


Homocysteine is an established marker to estimate the risk towards atherosclerosis and coronary heart disease. An elevated plasma homocysteine level (hyperhomocysteinemia), whether due to nutrient deficiencies or by genetic defects, can be reduced by intake of folic acid, vitamin B6 and B12. Therefore, the determination of homocysteine does not only serve for the risk assessment towards atherosclerotic affections but also to ensure the proper combination and dosage of a nutrition supplement therapy. The RECIPE test kit allows for the simultaneous analysis of total homocysteine (tHcys) and total cysteine (tCys).



→ Reliable sample preparation (specific derivatisation reagent)

→ Injection interval: 5 min

## Metabolic Diseases

# Homocysteine in Plasma

### Test Data

Linearity: 1 - 100  $\mu\text{mol/l}$   
 Recovery: 95 - 105 %  
 LOD: 0.5  $\mu\text{mol/l}$   
 LLOQ: 1  $\mu\text{mol/l}$   
 Intraassay precision: 3.9 %  
 Interassay precision: 5.8 %

### HPLC Parameters

Pump: isocratic pump, flow rate: 1.0 ml/min  
 Injection volume: 20  $\mu\text{l}$   
 Injection interval: 5 min  
 Fluorescence detector: 385 nm (exc.), 515 nm (em.)  
 HPLC-Thermostat: 30 °C

### Sample Preparation

#### Reduction:

100 $\mu\text{l}$ plasma	25 $\mu\text{l}$ Internal Standard IS	25 $\mu\text{l}$ Reagent A
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#### Precipitation:

150 $\mu\text{l}$ reduced sample	100 $\mu\text{l}$ Reagent B
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#### Derivatisation:

centrifuge

50 $\mu\text{l}$ supernatant	100 $\mu\text{l}$ Reagent C	50 $\mu\text{l}$ Reagent D
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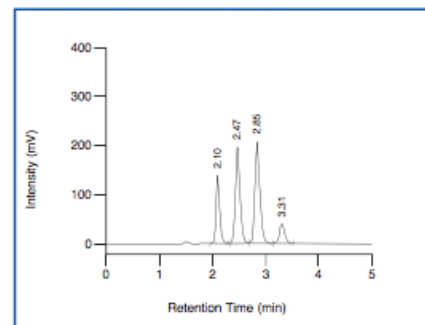


#### HPLC Analysis:

incubate (60 min, 60 °C)

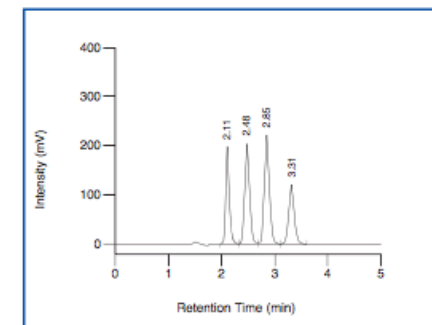
Inject 20 $\mu\text{l}$
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ClinChek® Plasma Control, Level I



Cysteine: 2.10 min, IS: 2.47 min, Cysteinylglycine: 2.85 min, Homocysteine: 3.31 min

ClinChek® Plasma Control, Level II



Cysteine: 2.11 min, IS: 2.48 min, Cysteinylglycine: 2.85 min, Homocysteine: 3.31 min

### Ordering Information

Order No.	Description	Quantity
23000	ClinRep® Complete Kit for Homocysteine in Plasma for 100 assays	1 pce.
<b>Kit Components (order no. 23000):</b>		
23010	Mobile Phase	1000 ml
23011	Standard Solution	3 ml
23012	Internal Standard IS	3 ml
23013	Plasma Calibrator, lyophil.	3 ml
23020	Sample Preparation Vials	100 pcs.
23021	Reagent A	3 ml
23022	Reagent B	10 ml
23023	Reagent C	10 ml
23024	Reagent D	5 ml
	Manual	1 pce.
	Quick Reference	1 pce.
<b>Start Accessories:</b>		
23030	Analytical Column with test chromatogram	1 pce.
<b>Accessories:</b>		
23060	250 $\mu\text{l}$ derivatisation vial with cap (PE)	50 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.
<b>ClinChek® Controls:</b>		
23080	Plasma Control, lyophil., Level I	10 x 3 ml
23081	Plasma Control, lyophil., Level II	10 x 3 ml
23082	Plasma Control, lyophil., Level I, II	2 x 5 x 3 ml