

Homocysteine is an established parameter for the risk assessment of degenerative vascular diseases, which may lead to heart attack, stroke and thrombosis. The RECIPE ClinMass® Complete Kit allows a reliable determination of total homocysteine for the detection of hyperhomocysteinemia. After an easy sample preparation (reduction and precipitation step) the samples are analysed with an injection interval of 1.0 min only.

Optionally, the sample preparation can be performed fully automated with liquid handling systems and 96-well plates.

## Metabolic Diseases

# Homocysteine in Plasma / Serum

### Test Data

Linearity: 0.1 - 106  $\mu\text{mol/l}$   
 LOD: 0.01  $\mu\text{mol/l}$   
 LLOQ: 0.1  $\mu\text{mol/l}$   
 Intraassay precision: 1.9 %  
 Interassay precision: 4.8 %

### LC-MS/MS Parameters

#### LC-Parameters

Pump: isocratic (0.7 ml/min)  
 Injection volume: 1  $\mu\text{l}$   
 Injection interval: 1.0 min  
 Column heater: room temperature

#### MS-Parameters

Ion source: ESI, positive  
 MS/MS-Mode: MRM

### Sample Preparation

#### Reduction:

50 $\mu\text{l}$ sample (+ 50 $\mu\text{l}$ Internal Standard IS)	50 $\mu\text{l}$ Reagent A
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↓ mix, incubate  
(room temperature, 5 min)

#### Precipitation:

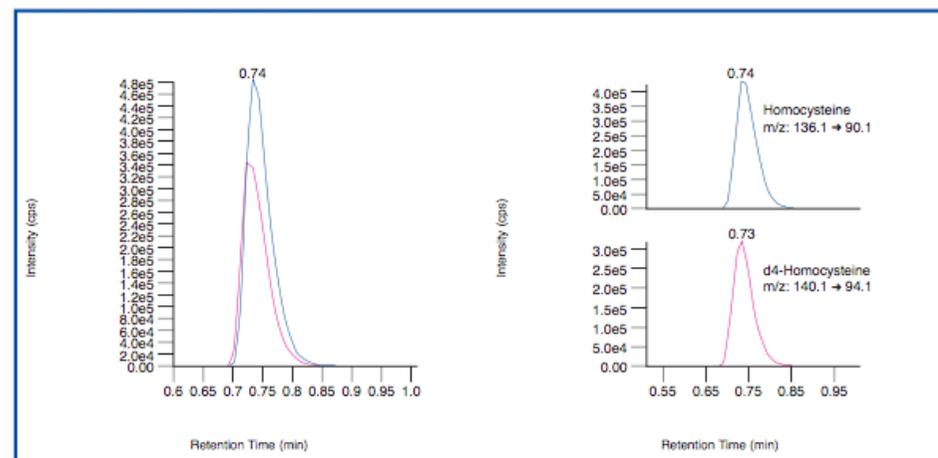
200 $\mu\text{l}$ Reagent B
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↓ 1. mix, incubate (4 °C, 5 min)  
 2. centrifuge

#### LC-MS/MS Analysis:

Inject 1 $\mu\text{l}$ of the supernatant
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Chromatogram (left) and mass traces (right) of the ClinCal® Serum Calibrator, Level 3 (order no. MS2013)



### Ordering Information

Order No.	Description	
MS2000	ClinMass® Complete Kit for Homocysteine in Plasma / Serum for 300 assays	1 pce.
<b>Kit Components (order no. MS2000):</b>		
MS2005	Autosampler Washing Solution	1000 ml
MS2010	Mobile Phase	800 ml
MS2012	Internal Standard IS, lyophil.	3 x MS2012 (3 x 5 ml)
MS2013	Serum Calibrator Set, lyophil. (Level 0 - 3)	4 x 1 x 1 ml
MS2020	Sample Preparation Vials	3 x MS2020 (3 x 100 pcs.)
MS2021	Reagent A	3 x MS2021 (3 x 5 ml)
MS2022	Reagent B	2 x MS2022 (2 x 30 ml)
	Manual	1 pce.
<b>Start Accessories:</b>		
MS2030	Analytical Column with test chromatogram	1 pce.
<b>Accessories:</b>		
FK6500	Protective sheets for 96-well-plate (aluminium foil, 80 x 140 mm)	100 pcs.
FK6510	96-Well-Plates (370 $\mu\text{l}$ )	5 pcs.
FK6511	96-Well-Plates (1200 $\mu\text{l}$ )	5 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

→ Simple and quick two-step sample preparation

→ Injection interval: 1.0 min

→ Optional: method with automated sample preparation (96-well plates)