

Several metabolic disorders result from an impaired amino acid metabolism. Furthermore, some forms of depression seem to be connected with alterations of the metabolism of tyrosine and tryptophane, these being the precursors of the brain neurotransmitters epinephrine, norepinephrine, dopamine, and serotonin. The ClinRep® Complete Kit serves for the analysis of the amino acids phenylalanine, tyrosine and tryptophane and may be used for the monitoring of the blood plasma level within a dietary therapy.

Important notice:

The kit is not intended for use in neonatal screening programmes and especially not for PKU diagnosis. For this diagnostic purpose two ClinMass® LC-MS/MS Complete Kits are provided (see pages 154 - 157).



Metabolic Diseases

Aromatic Amino Acids in Plasma

Test Data

Linearity:	0.2 - 50 mg/dl
Recovery:	90 - 100 %
Lower detection limit:	0.1 mg/dl
Lower determination limit:	0.2 mg/dl
Intraassay precision:	Plasma: 2.9 %
Interassay precision:	Plasma: 4.5 %

HPLC Parameters

Pump:	isocratic pump, flow rate: 1.0 ml/min
Injection volume:	20 µl
Injection interval:	12 min
UV/VIS-Detector:	214 nm
HPLC-Thermostat:	30 °C

Sample Preparation

Precipitation:

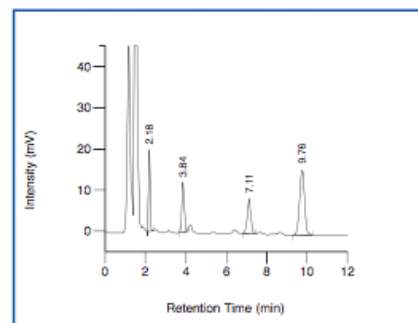
Pipette 50 µl sample into a vial with order no. 10020 (contains Precipitant P and Internal Standard)

1. incubate (15 min, 4 °C) ↓ 2. centrifuge

HPLC Analysis:

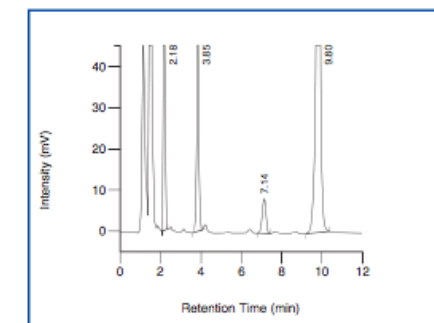
Inject 20 µl of the supernatant

ClinChek® Plasma Control, Level I



Tyrosine: 2.18 min, Phenylalanine: 3.84 min, IS: 7.11 min, Tryptophane: 9.76 min

ClinChek® Plasma Control, Level II



Tyrosine: 2.18 min, Phenylalanine: 3.85 min, IS: 7.14 min, Tryptophane: 9.80 min

Ordering Information

Order No.	Description	Quantity
10000	ClinRep® Complete Kit for Aromatic Amino Acids in Plasma for 100 assays	1 pce.
Kit Components (order no.: 10000)		
10010	Mobile Phase	1000 ml
10011	Standard Solution	4 ml
10013	Plasma Calibrator, lyophil.	3 ml
10020	Precipitant P with Internal Standard (contained in vials for sample preparation)	2 x 10020 (50 x 0.5 ml)
	Manual	1 pce.
	Quick Reference	1 pce.
Start Accessories:		
10030	Analytical Column with test chromatogram	1 pce.
FK7000	manu-CART® cartridgeholder, one time accessory	1 set
Accessories:		
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:		
10080	Plasma Control, lyophil., Level I	10 x 3 ml
10081	Plasma Control, lyophil., Level II	10 x 3 ml
10082	Plasma Control, lyophil., Level I, II	2 x 5 x 3 ml

→ Easy sample preparation

→ High analytical sensitivity

→ Reliable monitoring