

Vitamin C (ascorbic acid) is a potential scavenger for radicals and oxidants. The exposure to these species is termed as "oxidative stress". Oxidative stress is believed to contribute to the development of various chronic diseases such as cardiovascular disease, diabetes, and cancer. An inadequate vitamin C status is usually observed in cases of malnutrition, smoking, alcohol abuse, chronic toxications and stress. Also, nursing women and elderly people are in danger of a low vitamin C status. The RECIPE test kit features fast analysis (quick sample preparation, short run time) and ensures reliable results.

Oxidative Stress

Vitamin C in Plasma

Test Data

Linearity:	0.5 - 300 mg/l
Recovery:	95 - 100 %
LOD:	0.1 mg/l
LLOQ:	0.5 mg/l
Intraassay precision:	5.9 %
Interassay precision:	6.9 %

HPLC Parameters

Pump:	isocratic pump, flow rate: 1.3 ml/min
Injection volume:	20 μ l
Injection interval:	5 min
UV-Detector:	243 nm
HPLC-Thermostat:	30 °C

Sample Preparation

Precipitation:

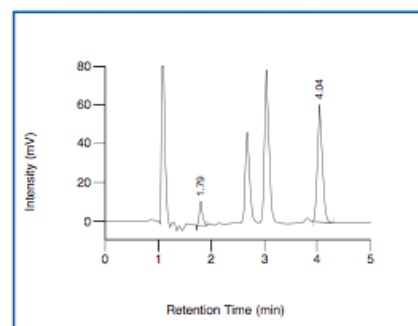
100 μ l sample	100 μ l Precipitant P (contains Internal Standard IS)
--------------------	--

1. incubate (10 min, + 4°C) ↓ 2. centrifuge

HPLC Analysis:

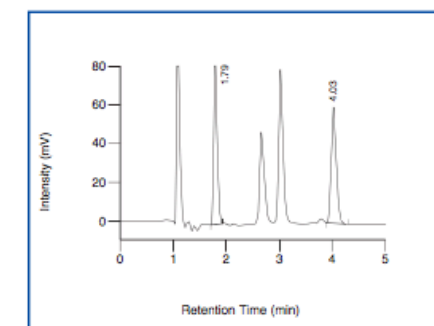
Inject 20 μ l of the supernatant

ClinChek® Serum Control, Level I



Vitamin C: 1.79 min, IS: 4.04 min

ClinChek® Serum Control, Level II



Vitamin C: 1.79 min, IS: 4.03 min

Ordering Information

Order No.	Description	Quantity
28000	ClinRep® Complete Kit for Vitamin C in Plasma for 100 assays	1 pce.
Kit Components (order no. 28000):		
28010	Mobile Phase	1000 ml
28012	Precipitant P with Internal Standard, lyophil.	5 x 3 ml
28013	Serum Calibrator, lyophil.	5 x 0.5 ml
28014	Test Solution, lyophil.	5 x 1 ml
28015	Reconstitution Solution R	25 ml
28020	Sample Preparation Vials	100 pcs.
	Manual	1 pce.
	Quick Reference	1 pce.
Start Accessories:		
28030	Analytical Column with test chromatogram	1 pce.
28032	Guard Column Holder incl. 1 Guard Column	1 pce.
Accessories:		
28033	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:		
28080	Serum Control, lyophil., Level I	10 x 0.5 ml
28081	Serum Control, lyophil., Level II	10 x 0.5 ml
28082	Serum Control, lyophil., Level I, II	2 x 5 x 0.5 ml

→ Quick sample preparation

→ Injection interval: 5 min

→ Reference materials
with excellent stability
available