

The ClinMass® Complete Kits with order nos. MS1100 and MS1200 enable a fast on-line SPE LC-MS/MS analysis of cyclosporine A, tacrolimus, sirolimus and everolimus with an injection interval of 2 min only. The sample pretreatment can be performed manually (MS1100) or automated with liquid handling systems of several device manufacturers (MS1200).

## Immunosuppressants

# Immunosuppressants in Whole Blood, advanced

– on-line Analysis

– automated on-line Analysis

### Test Data

Linearity (up to):

1750 µg/l (Cyc), 72 µg/l (Tcr, Srl, Evr)

LOD:

0.011 µg/l (Cyc), 0.004 µg/l (Tcr),

0.073 µg/l (Srl), 0.126 µg/l (Evr)

LLOQ:

0.037 µg/l (Cyc), 0.014 µg/l (Tcr),

0.244 µg/l (Srl), 0.420 µg/l (Evr)

Intraassay precision:

2.5 % (Cyc), 4.6 % (Tcr), 4.8 % (Srl), 4.9 % (Evr)

Interassay precision:

6.5 % (Cyc), 4.2 % (Tcr), 4.4 % (Srl), 4.3 % (Evr)

### LC-MS/MS Parameters

#### LC-Parameters

Pump 1: SPE-Buffer (0.1 / 2.5 ml/min)

Pump 2: Mobile Phase (0.5 / 1.0 ml/min)

Injection volume: 20 - 50 µl

Injection interval: 2 min

Switching valve: 6-port/3-channel  
(order no. FK1102)

Column heater: 60 °C

#### MS-Parameters

Ion source: ESI, positive

MS/MS-Mode: MRM

### Sample Pretreatment

Precipitation:

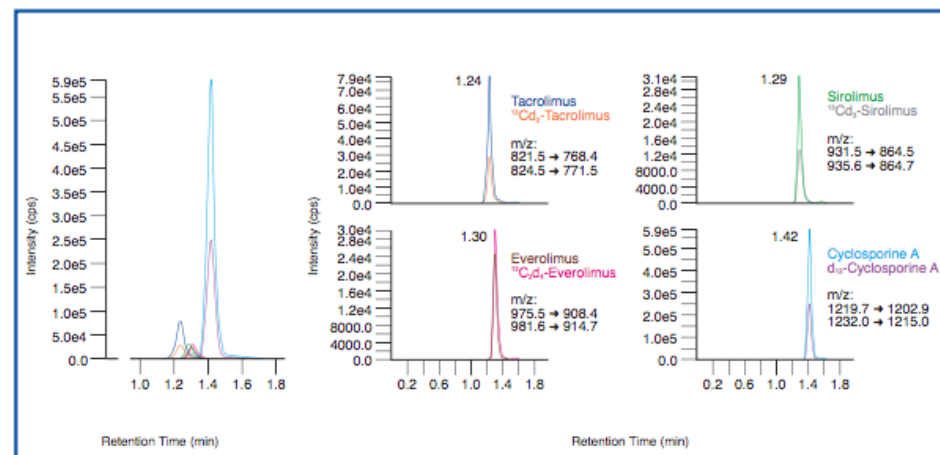
200 µl Precipitant P	20 µl Internal Standard IS	100 µl whole blood (calibrator, control, patient)
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1. mix and incubate (ambient temperature)
  2. mix and centrifuge

on-line Analysis:

Inject 20 - 50 µl of the supernatant

Chromatogram (left) and mass traces (right) of the ClinCal® Whole Blood Calibrator (order no. 9933), level 4



### Ordering Information

Order No.	Description	Quantity
<b>MS1100</b>	ClinMass® Complete Kit, advanced, for Immunosuppressants in Whole Blood for 400 assays	1 pce.
	<b>Kit Components (order no. MS1100):</b>	
<b>MS1005</b>	Autosampler Washing Solution	1000 ml
<b>MS1009</b>	SPE-Buffer	2 x MS1009 (2 x 1000 ml)
<b>MS1010</b>	Mobile Phase	800 ml
<b>MS1412</b>	Internal Standard IS, lyophil.	3 x MS1412 (3 x 3 ml)
<b>MS1020</b>	Sample Pretreatment Vials	4 x MS1020 (4 x 100 pcs.)
<b>MS1021</b>	Precipitant P	80 ml
	Manual	1 pce.
<b>MS1200</b>	ClinMass® Complete Kit, advanced, for Immunosuppressants in Whole Blood for 1200 assays	1 pce.
	<b>Kit Components (order no. MS1200):</b>	
	3-fold amount of kit components with order no. MS1100 (MS1005, ... , MS1021) - without MS1020 (but with FK6511 instead)*	3 x MS1100*
<b>FK6511</b>	96-Well-Plates (1200 µl)	3 x FK6511 (3 x 5 pcs.)
	Manual	1 pce.
	<b>Additional Components:</b>	
<b>MS1006</b>	Reagent MP	8 ml
<b>MS1014</b>	Optimisation Mix 1, lyophil.	2 ml
<b>MS1115</b>	Optimisation Mix 2, lyophil.	2 ml
<b>9028</b>	Whole Blood Calibrator, lyophil. (additional level for order nos. 9033 and 9933)	2 x 2 ml
<b>9033</b>	Whole Blood Calibrator Set, lyophil. (Level 0 - 3)	4 x 1 x 2 ml
<b>9933</b>	Whole Blood Calibrator Set, lyophil. (Level 0 - 6)	7 x 1 x 2 ml
	<b>Start Accessories:</b>	
<b>MS1030</b>	Analytical Column with test chromatogram	1 pce.
<b>MS1031</b>	SPE-Column	1 pce.
<b>MS1032</b>	Guard Column Holder incl. 1 Guard Column	1 pce.
<b>MS1033</b>	Guard Column	5 pcs.
	<b>Accessories:</b>	
<b>FK6501</b>	Protective Sheets for 96-Well-Plates (PE/PP foil, 80 x 140 mm)	50 pcs.
<b>FK6514</b>	96-Well Plates (300 µl)	5 pcs.
<b>FK7400</b>	Inline-Filter (stainless steel sieve, free of dead volume)	1 pce.
<b>FK7340</b>	Sealings and sieves for order no. FK7400	4 pcs. each
	<b>ClinChek® Controls:</b>	
<b>8830</b>	Whole Blood Control, lyophil., Level I	5 x 2 ml
<b>8831</b>	Whole Blood Control, lyophil., Level II	5 x 2 ml
<b>8832</b>	Whole Blood Control, lyophil., Level III	5 x 2 ml
<b>8833</b>	Whole Blood Control, lyophil., Level I, II, III	3 x 2 x 2 ml
<b>8903</b>	Whole Blood Control, lyophil., Level IV, V	2 x 2 x 2 ml

→ Fast on-line analysis  
(injection interval: 2 min)

→ No matrix effects

→ 4- and 7-Level calibrator  
set available