

PT. Kromtekindo Utama

Jl. RC. Veteran No. 3 Tanah Kusir, Bintaro
Jakarta Selatan 12330

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Certificate of Qualification

This is to certify that the stated instrument has been successfully
passed all qualification tests

Issued for

: PT. Mersifarma

Diterbitkan untuk

**Jl. Raya Bogor No. 52, Cisalak, Kec. Sukmajaya, Kota Depok
Jawa Barat, 16416**

Date of Calibration

: October 08, 2025

Tanggal Kalibrasi

Performer

: Hikmat Ramdani

Pelaksana

Instrument Identification :

RD LC 02 UV

Identifikasi Instrumen

Instrument Name	Model Number	Serial Number
Pump	Alliance	E21SM4949A
Injector	Alliance	E21SM4949A
Sample Cooler	SHC	E21SHC255A
Column Heater	SMC	E21SMC398G
Detector	2489 UV/Vis	F2187E525A
Integrator	Empower 3 Software	N/A

This Certificate includes 2 pages

Sertifikat ini terdiri dari 2 halaman

Jakarta, October 08, 2025

Performed By,

**Hikmat Ramdani
Technical Support**

Instrument Name	Model Number	Serial Number
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Injector	Alliance	E21SM4949A
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Detector	2489 UV/Vis	F2187E525A
Integrator	Empower 3 Software	N/A

Qualification Result

Performance Under Test	Results	Acceptable Range	Status
Flowrate Accuracy Test 1 mL/min	10 min 06 sec	10 min $\pm$ 18 sec	Passed
Flowrate Accuracy Test 0.5 mL/min	10 min 00 sec	10 min $\pm$ 36 sec	Passed
GPV Accuracy Test	0.2 %	< 0.5 %	Passed
Injection Volume Accuracy Test	49.26 uL	50 $\pm$ 1 uL	Passed
Sample Cooler Temperature Accuracy Test	18.0 ° C	15.0 $\pm$ 4° C	Passed
Column Heater Temperature Accuracy Test	40.4 ° C	40.0 $\pm$ 3° C	Passed
2489 UV/Vis : Detector wavelength Accuracy Test	256 nm 378 nm 521 nm	255 $\pm$ 1.5 nm 379 $\pm$ 1.5 nm 522 $\pm$ 1.5 nm	Passed Passed Passed
Detector Linearity Test	3.4 %	< 4.5 %	Passed
Overall System Performance : % RSD (Propyl Paraben)			
- Retention Time	0.0 %	$\leq$ 1 %	Passed
- Area	0.1 %	$\leq$ 1 %	Passed
- Injector Linearity Test	0.9999	$\geq$ 0.9990	Passed