

PT. Kromtekindo Utama

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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 : November 24, 2025
Tanggal Kalibrasi

Performer : Hikmat Ramdani
Pelaksana

Instrument Identification : RD LC 04 UV
Identifikasi Instrumen

Instrument Name	Model Number	Serial Number
Pump	Alliance	J22SM4714A
Injector	Alliance	J22SM4714A
Sample Cooler	SHC	J22SHC684A
Column Heater	SMC	K22SMC768G
Detector	2489 UV/Vis	M2287E801A
Integrator	Empower 3 Software	N/A

This Certificate includes 2 pages
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Jakarta, November 24, 2025
Performed By,

Hikmat Ramdani
Technical Support

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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 02 sec	10 min $\pm$ 36 sec	Passed
GPV Accuracy Test	0.1 %	< 0.5 %	Passed
Injection Volume Accuracy Test	50.43 uL	50 $\pm$ 1 uL	Passed
Sample Cooler Temperature Accuracy Test	16.3 ° C	15 $\pm$ 4° C	Passed
Column Heater Temperature Accuracy Test	40.5° C	40 $\pm$ 3° C	Passed
2489 UV/Vis : Detector wavelength Accuracy Test	255 nm 378 nm 520 nm	255 $\pm$ 1.5 nm 379 $\pm$ 1.5 nm 522 $\pm$ 1.5 nm	Passed Passed Passed
Detector Linearity Test	1.2 %	< 4.5 %	Passed
Overall System Performance : % RSD (Propyl Paraben)			
- Retention Time	0.3 %	$\leq$ 1 %	Passed
- Area	0.2 %	$\leq$ 1 %	Passed
- Injector Linearity Test	0.9999	$\geq$ 0.9990	Passed