



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

MOLECULAR DEVICES, LLC.
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CALIBRATION

Valid To: July 31, 2023

Certificate Number: 3127.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1,5}:

I. Optical Quantities

Parameter/Equipment	Range ^{3,4}	CMC ^{2,3,6} (\pm)	Comments
Calibration of Validation Microplates for Molecular Devices Microplate Readers –			
Photometric Accuracy	(0.25 to 3.0) OD	0.0077 OD	SpectraMax Plus384 microplate reader and absorbance plate ABS1
	(0.25 to 3.0) OD	0.020 OD	SpectraMax ABS Plus microplate reader and Absorbance plate ABS2
Fluorescence Intensity	(500 to 1100) RFU	2.6 % of reading	SpectrMax M2 microplate reader and fluorescence plate FL1
Luminescence Intensity	$(5.0 \times 10^3$ to $2.0 \times 10^7)$ RLU	4.2 % of reading	SpectrMax M5 and SpectraMax L microplate readers and luminescence plate LM1

Parameter/Equipment	Range ³	CMC ^{2, 3, 6} (±)	Comments
Wavelength Accuracy	(320 to 800) nm	1.2 nm	SpectraMax Plus384 and SpectraMax M2 microplate readers and ABS1 and FL1 plates
	(320 to 800) nm	1.2 nm	SpectraMax ABS Plus and SpectraMax M2 micro plate reader and ABS2 and FL1 Plate

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ In the statement of Range and CMC, OD = Optical Density (also called Absorbance) is a measure of the light-absorbing ability of an object, expressed as: $OD_{\lambda} = -\log_{10} (I/I_0)$, where I is the transmitted light intensity at a specified wavelength λ that has passed through a sample, and I_0 is the incident light intensity of the light before it passes through the sample.

⁴ In the statement of Range, RFU is equal to relative fluorescent units and RLU is equal to relative luminescence units.

⁵ This scope meets A2LA's *P112 Flexible Scope Policy*.

⁶ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.





Accredited Laboratory

A2LA has accredited

MOLECULAR DEVICES, LLC.

San Jose, CA

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).



Presented this 22nd day of October 2021.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3127.01
Valid to July 31, 2023
Revised May 24, 2023

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.