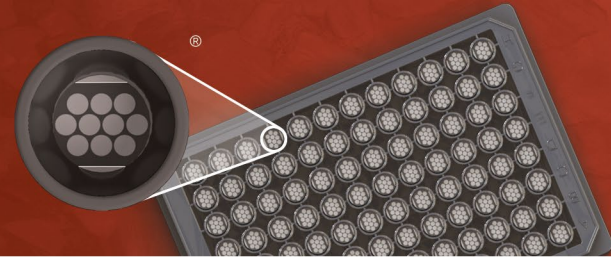


MSD[®] ACE2 Calibration Reagent 3



www.mesoscale.com[®]

Catalog No.	C01APE-2
Contents	ACE2 Calibration Reagent 3 (65 μ L frozen liquid per vial)* *Available as a stand-alone product and kit component reagent on select V-PLEX COVID-19 ACE2 Neutralization Kits
Storage	$\leq -70^{\circ}\text{C}$

Ordering Information

MSD Customer Service
Phone: 1-240-314-2795
Fax: 1-301-990-2776
Email: CustomerService@mesoscale.com
www.mesoscale.com/support

Scientific Support

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Email: ScientificSupport@mesoscale.com
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Company Address

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USA

Summary and Intended Use

ACE2 Calibration Reagent 3 is a serum-based calibrator for the V-PLEX[®] COVID-19 ACE2 Neutralization Kits. The ACE2 Calibration Reagent 3 demonstrates neutralizing activity against Spike and RBD antigens from all SARS-CoV 2 variants on the V-PLEX COVID-19 ACE2 Neutralization Kits. The ACE2 Calibration Reagent 3 reports assigned values for neutralizing antibodies against multiple antigens in MSD Inhibitory Antibody Units per mL (IAU/mL), where 1 IAU/mL is the concentration that provides 90% inhibition of the binding of ACE2 to a target antigen.

For assigned values, refer to the ACE2 Calibration Reagent 3 lot-specific certificate of analysis (COA).

Instruction for Use

Users should follow the recommended assay protocol outlined in the V-PLEX COVID-19 ACE2 Neutralization Assays Insert. Prepare the calibration reagent as described below. ACE2 Calibration Reagent 3 is supplied at a 10-fold higher concentration than the recommended highest calibrator. We recommend a 7-point calibration curve with 4-fold serial dilution steps and a zero calibrator blank. Thaw the stock calibrator on ice, equilibrate to room temperature, and then add to Diluent 100 to make the calibrator curve solutions. Volumes below are enough for up to 2 replicates.

- To make the CAL-01 in a 2 mL tube, combine:
 - 10 μ L of the 10X ACE2 Calibration Reagent 3
 - 90 μ L of Diluent 100
- To prepare a 4-fold dilution for the next calibrator, CAL-02, in a 2 mL tube combine:
 - 25 μ L of the diluted calibrator from Step 1
 - 75 μ L of Diluent 100
- Repeat 4-fold serial dilutions 5 additional times to generate CAL-03 to CAL-07 calibrators
- The 8th calibrator CAL-08 is Diluent 100 (zero calibrator)

Calibration curves used to calculate antibody concentrations are established by fitting the signals from the calibrators to a 4-parameter logistic (or sigmoidal dose-response) model with a $1/Y^2$ weighting. Antibody unit concentrations in samples are determined from their ECL signals by backfitting to the calibration curve. Correcting for dilution then provides the final sample concentrations in IAU/mL.

Storage and Handling

To maximize consistency in calibrator values across assay runs, the calibrator must be stored at the recommended temperature and handled according to the instructions provided herein. Stock calibrator is stable for 5 years from the date of manufacture when stored at $\leq -70^{\circ}\text{C}$. Thawed calibrator is stable through five freeze-thaw cycles. Excess diluted calibrator should be discarded after use.

Safety

ACE2 Calibration Reagent 3 contains human serum and is a biosafety level 2 (BSL-2) product. Donors have been tested and found negative for HBsAg, HIV-1 and HIV-2 antibodies, and HCV. Use safe laboratory practices and wear gloves, safety glasses, and lab coats when handling calibrators. Handle and dispose of all hazardous samples properly in accordance with local, state, and federal guidelines. Additional product-specific safety information is available in the safety data sheet (SDS), which can be obtained from MSD Customer Service or at www.mesoscale.com.

For Research Use Only.
Not for use in diagnostic procedures.