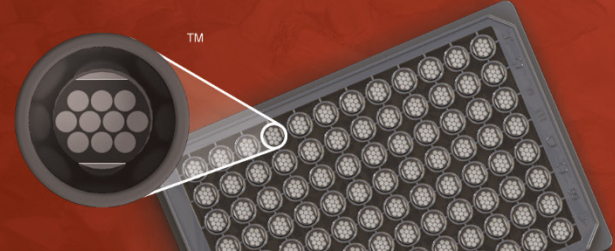


MSD™ ACE2 Calibration Reagent



Ordering Information

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

Catalog Number	C01ADG-2
Contents	ACE2 Calibration Reagent (65 uL per vial)
Storage	2–8 °C

Scientific Support

Phone: 1-240-314-2798
Email: ScientificSupport@mesoscale.com
www.mesoscale.com/support

Company Address

MESO SCALE DISCOVERY®
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1601 Research Boulevard
Rockville, MD 20850-3173
USA

www.mesoscale.com®

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

Summary and Intended Use

ACE2 Calibration Reagent contains SARS-CoV/SARS-CoV-2 Spike monoclonal neutralizing antibody and is used as an assay calibrator in the V-PLEX® COVID-19 ACE2 Neutralization Kits, including V-PLEX SARS-CoV-2 Panel 1 (catalog No. K15375U), V-PLEX SARS-CoV-2 Panel 2 (catalog No. K15386U), V-PLEX COVID-19 Coronavirus Panel 1 (catalog No. K15376U), V-PLEX COVID-19 Coronavirus Panel 2 (catalog No. K15378U), V-PLEX COVID-19 Coronavirus Panel 3 (catalog No. K15402U), V-PLEX COVID-19 Respiratory Panel 2 (catalog No. K15379U), V-PLEX COVID-19 Respiratory Panel 3 (K15406U), and V-PLEX SARS-CoV-2 384 Panel 1 (catalog No. K25395U).

For the concentration (unit/mL) of calibrator at each calibrator point, refer to the V-PLEX COVID-19 ACE2 Neutralization Kits product insert. One unit per mL concentration of ACE2 Calibration Reagent corresponds to neutralizing activity of 1 µg per mL monoclonal antibody to SARS-CoV/SARS-CoV-2 Spike protein.

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 calibration reagent is stable for 42 months from the date of manufacture when stored at 2–8 °C.

We recommend a 7-point calibration curve with 4-fold serial dilution steps and a zero calibrator blank. Equilibrate the stock calibrator to room temperature and then add to the assay diluent to make the calibrator curve solutions. Excess diluted calibrator should be discarded after use. ACE2 Calibration Reagent requires a 10-fold dilution to create the highest calibrator point (CAL-01).

Refer to the assay-specific product insert for calibrator preparation and instruction for use.

Results can be reported as percent inhibition, calculated using the equation below. Highly positive samples show high percent inhibition whereas negative or low samples show low percent inhibition.

$$\% \text{ Inhibition} = 1 - \frac{\text{Average Sample ECL Signal}}{\text{Average ECL signal of Calibrator 8 (Diluent only)}} \times 100$$

Alternatively, the calibration curve can be used to calculate neutralizing antibody concentrations in samples, by backfitting the measured signals for samples to the calibration curve. Correcting for dilution provides the final neutralizing antibody concentrations in undiluted samples (in unit/ml). For example, if 100-fold diluted samples are tested, multiply the backfitted concentrations by 100. 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/Y² weighting. Best quantification of unknown samples is achieved by generating a calibration curve for each plate using a minimum of two replicates at each calibrator level.

Note: To allow accurate and meaningful comparison between samples, compare results obtained using the same sample dilution.

Safety

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.

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