



## CERTIFICATE OF ANALYSIS

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**Product Description:** V-PLEX® SARS-CoV-2 Panel 7 Kit  
**Kit Catalog Numbers:** K15437-Series; K15438-Series; K15439-Series; K15440-Series  
**Kit Lot Number:** K0081681  
**Expiration Date:** 31 DEC 2022

### Kit Components:

Description	Lot Number	Storage Temperature	Expiration Date
SARS-CoV-2 Plate 7	Z0056895	2-8°C	31 AUG 2023
SULFO-TAG™ Anti-Human IgG Antibody	D00V0009	2-8°C	31 JUL 2024
SULFO-TAG™ Anti-Human IgM Antibody	D0014233	2-8°C	31 OCT 2023
SULFO-TAG™ Anti-Human IgA Antibody	D00V0010	2-8°C	31 JUL 2024
Reference Standard 1	A0080270	≤ -70°C	30 SEP 2025
Serology Control 1.1	A00C0731	≤ -70°C	30 JUN 2025
Serology Control 1.2	A00C0732	≤ -70°C	30 JUN 2025
Serology Control 1.3	A00C0733	≤ -70°C	30 JUN 2025
SULFO-TAG™ Human ACE2 Protein	D0081619	2-8°C	31 DEC 2022
ACE2 Calibration Reagent	A00V0001	2-8°C	31 DEC 2023
Diluent 100	Not Kit Specific	2-8°C	See Label
MSD Blocker A Kit	Not Kit Specific	Room Temperature	See Label
MSD GOLD Read Buffer B	Not Kit Specific	Room Temperature	See Label

See product insert regarding which components are provided with each IgG, IgA, IgM, and ACE2 kit.

### Plate Uniformity Testing Results:

Parameter	Precision			Uniformity	Signal
	CV of Intra-plate Averages	Average Intra-plate CV	Max Intra-plate CV		
SARS-CoV-2 Spike	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000
SARS-CoV-2 S1 RBD (B.1.351)	23%	≤ 10%	≤ 13%	Flag	1,500 – 1,000,000
SARS-CoV-2 Nucleocapsid	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000
SARS-CoV-2 S1 RBD (P.1)	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000
SARS-CoV-2 S1 RBD (B.1.1.7)	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000
SARS-CoV-2 Spike (P.1)	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000
SARS-CoV-2 Spike (B.1.1.7)	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000
SARS-CoV-2 Spike (B.1.351)	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000
SARS-CoV-2 S1 RBD	≤ 18%	≤ 10%	≤ 13%	Pass	1,500 – 1,000,000



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### Coating Confirmation Testing Results:

Spot	Description	Result
1	SARS-CoV-2 Spike	Pass
2	SARS-CoV-2 S1 RBD (B.1.351)	Pass
3	SARS-CoV-2 Nucleocapsid	Pass
4	SARS-CoV-2 S1 RBD (P.1)	Pass
6	SARS-CoV-2 S1 RBD (B.1.1.7)	Pass
7	SARS-CoV-2 Spike (P.1)	Pass
8	SARS-CoV-2 Spike (B.1.1.7)	Pass
9	SARS-CoV-2 Spike (B.1.351)	Pass
10	SARS-CoV-2 S1 RBD	Pass

### Functional Testing Results:

Sample Type	Calibrator	Controls		Samples	
		Average Signal Ratio Test:Reference	Control Recovery	Control Conc. CV	Average % Difference Test:Reference
SARS-CoV-2 Spike	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 S1 RBD (B.1.351)	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 Nucleocapsid	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 S1 RBD (P.1)	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 S1 RBD (B.1.1.7)	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 Spike (P.1)	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 Spike (B.1.1.7)	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 Spike (B.1.351)	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2
SARS-CoV-2 S1 RBD	50 – 200%	70 – 130%	< 20%	± 25%	0.80 – 1.2

### Additional Comments:

Functional testing was executed using SARS-CoV-2 Plate 7 (Z0056895), SULFO-TAG Anti-Human IgG Antibody (D00V0009), Reference Standard 1 (A0080270), and Serology Controls (A00C0731, A00C0732, A00C0733).

All kit components were manufactured and tested according to MSD documents. The lots listed in the Kit Components table meet MSD's specifications.

### Statement:

The above product is intended for Research Use Only. Not for use in Diagnostic Procedures.

	Name	Function	Signature	Date
Review/Approval	Karen Hamilla	Quality		25 MAR 2021