

CERTIFICATE OF ANALYSIS

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Product Description:	V-PLEX [®] COVID-19 Coronavirus Panel 1			
Kit Catalog Numbers:	K15364-Series; K15376-Series; K15362-Series; K15363-Series			
Kit Lot Number:	K0082112			
Expiration Date :	30 APR 2023			

Kit Components:

Description	Lot Number	Storage Temperature	Expiration Date
Coronavirus Plate 1	Z0056825	2-8°C	30 APR 2023
Reference Standard 1	A0080286	\leq -70°C	28 FEB 2026
Serology Control 1.1	A00C0771	\leq -70°C	28 FEB 2026
Serology Control 1.2	A00C0772	\leq -70°C	28 FEB 2026
Serology Control 1.3	A00C0773	\leq -70°C	28 FEB 2026
SULFO-TAG [™] Human ACE2 Protein	D0081760	2-8°C	31 JAN 2024
ACE2 Calibration Reagent	A0080285	2-8°C	31 AUG 2024
SULFO-TAG [™] Anti-Human IgG Antibody	D00V0024	2-8°C	31 AUG 2025
SULFO-TAG [™] Anti-Human IgM Antibody	Not Kit Specific	2-8°C	See Label
SULFO-TAG [™] Anti-Human IgA Antibody	Not Kit Specific	2-8°C	See Label
SULFO-TAG [™] Anti-Mouse IgG Antibody	Not Kit Specific	2-8°C	See Label
SULFO-TAG [™] Anti-Mouse IgM Antibody	Not Kit Specific	2-8°C	See Label
SULFO-TAG [™] Anti-Mouse IgA Antibody	Not Kit Specific	2-8°C	See Label
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
Metric	CV of Intra- plate Averages	Average Intra- plate CV	Max Intra- plate CV	Average Uniformity Metric	Average Signal
SARS-CoV-2 Spike	≤18%	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000
Flu A/HongKong H3	≤18%	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000
SARS-CoV-2 Nucleocapsid	≤18%	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000
SARS-CoV-1 Spike	≤18%	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000
SARS-CoV-2 S1 NTD	≤18%	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000
HCoV-HKU1 Spike	≤18%	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000
HCoV-OC43 Spike	≤18%	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000
MERS-CoV Spike	≤25%	≤15%	≤18%	Pass	1,500 - 1,000,000
SARS-CoV-2 S1 RBD	$\leq 18\%$	$\leq 10\%$	≤13%	Pass	1,500 - 1,000,000



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Spot	Description	Result	
1	SARS-CoV-2 Spike	Pass	
2	Flu A/HongKong H3	Pass	
3	SARS-CoV-2 Nucleocapsid	Pass	
4	SARS-CoV-1 Spike	Pass	
6	SARS-CoV-2 S1 NTD	Pass	
7	HCoV-HKU1 Spike	Pass	
8	HCoV-OC43 Spike	Pass	
9	MERS-CoV Spike	Pass	
10	SARS-CoV-2 S1 RBD	Pass	

Functional Testing Results:

Sample Type	Calibrator	Controls		Samples	5
Metric	Average Signal Ratio Test:Reference	Control Recovery	Control Conc. CV	Average % Difference Test:Reference	Slope Test:Reference
SARS-CoV-2 Spike	50 - 200%	70 - 130%	< 20%	$\pm 25\%$	0.80 - 1.2
Flu A/HongKong H3	50 - 200%	70 - 130%	< 20%	$\pm 25\%$	0.80 - 1.2
SARS-CoV-2 Nucleocapsid	50 - 200%	70 - 130%	< 20%	$\pm 25\%$	0.80 - 1.2
SARS-CoV-1 Spike	50 - 200%	70 - 130%	< 20%	$\pm 25\%$	0.80 - 1.2
SARS-CoV-2 S1 NTD	50 - 200%	70 - 130%	< 20%	± 25%	0.80 - 1.2
HCoV-HKU1 Spike	50 - 200%	70 - 130%	< 20%	$\pm 25\%$	0.80 - 1.2
HCoV-OC43 Spike	50 - 200%	70 - 130%	< 20%	$\pm 25\%$	0.80 - 1.2
MERS-CoV Spike	50 - 200%	70 - 130%	< 20%	± 25%	0.80 - 1.2
SARS-CoV-2 S1 RBD	50 - 200%	70 - 130%	< 20%	$\pm 25\%$	0.80 - 1.2

Additional Comments:

Functional testing was executed using Coronavirus Plate 1 (Z0056825), SULFO-TAG Anti-Human IgG Antibody (D00V0005), Reference Standard 1 (A00V0004), 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	Haven Hamille	25 AUG 2022