



CERTIFICATE OF ANALYSIS

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Product Description: Reference Standard 2

Catalog Number: C00AUB-2

Lot Number: A0080403

Storage Temperature: ≤ -70 °C

Expiration Date: 30 JUN 2034

Values are provided in two units – MSD Arbitrary Units/mL (AU/mL) and WHO Biological Arbitrary Units/mL (BAU/mL) (NIBSC 20/136)

WHO/NIBSC Units: MSD Units				
Antigen	Isotype	Vialed	1:10	Unit of Measure
SARS-CoV-2 Spike	IgG	11.4	1.14	BAU/mL
SARS-CoV-2 Spike	IgA	14.1		BAU/mL
SARS-CoV-2 N	IgG	2.09	0.209	BAU/mL
SARS-CoV-2 N	IgA	6.88		BAU/mL

Concentration Assignment of IgG Antibodies:

IgG: Use at 1:10 for all plate types

Assay	Conc. of IgG (vialed)	Conc. of IgG (1:10)	Unit of Measure
SARS-CoV-2			
SARS-CoV-2 Spike	1270	127	AU/mL
SARS-CoV-2 N	885	88.5	AU/mL
SARS-CoV-2 Spike (B.1.1.529; BA.1)	291	29.1	AU/mL
SARS-CoV-2 Spike (B.1.1.7)	899	89.9	AU/mL
SARS-CoV-2 Spike (B.1.351)	775	77.5	AU/mL
SARS-CoV-2 Spike (B.1.617.2; AY.4)	901	90.1	AU/mL
SARS-CoV-2 Spike (BA.2)	464	46.4	AU/mL
SARS-CoV-2 Spike (BA.2.12.1)	455	45.5	AU/mL
SARS-CoV-2 Spike (BA.2.75)	272	27.2	AU/mL
SARS-CoV-2 Spike (BA.2.86)	336	33.6	AU/mL
SARS-CoV-2 Spike (BA.5)	635	63.5	AU/mL
SARS-CoV-2 Spike (EG.5.1)	318	31.8	AU/mL
SARS-CoV-2 Spike (FL.1.5.1)	335	33.5	AU/mL
SARS-CoV-2 Spike (HV.1)	366	36.6	AU/mL
SARS-CoV-2 Spike (JD.1.1)	365	36.5	AU/mL
SARS-CoV-2 Spike (JN.1)	299	29.9	AU/mL
SARS-CoV-2 Spike (JN.1 (v2))	323	32.3	AU/mL
SARS-CoV-2 Spike (KP.2)	298	29.8	AU/mL
SARS-CoV-2 Spike (KP.3)	276	27.6	AU/mL
SARS-CoV-2 Spike (LB.1)	225	22.5	AU/mL
SARS-CoV-2 Spike (XBB.1.16)	420	42.0	AU/mL
SARS-CoV-2 Spike (XBB.1.16.6)	286	28.6	AU/mL
SARS-CoV-2 Spike (XBB.1.5)	289	28.9	AU/mL
SARS-CoV-2 Spike (XBB.1.5 (v2))	427	42.7	AU/mL
SARS-CoV-2 Spike (XBB.2.3)	478	47.8	AU/mL
Other Respiratory Viruses			
Flu A/Ghana/39/2021 H5	97.4	9.74	AU/mL
Flu A/Massachusetts/18/2022 H3	561	56.1	AU/mL
Flu A/Wisconsin/67/2022 H1	801	80.1	AU/mL



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Flu B/Austria/2021 HA	882	88.2	AU/mL
RSV Pre-Fusion F	1030	103	AU/mL

Concentration Assignment of IgA Antibodies:

IgA: Use as vialled for all plate types

Assay	Conc. of IgA (vialled)	Unit of Measure
SARS-CoV-2		
SARS-CoV-2 Spike	227	AU/mL
SARS-CoV-2 N	62.0	AU/mL
SARS-CoV-2 Spike (B.1.1.529; BA.1)	62.6	AU/mL
SARS-CoV-2 Spike (B.1.1.7)	158	AU/mL
SARS-CoV-2 Spike (B.1.351)	148	AU/mL
SARS-CoV-2 Spike (B.1.617.2; AY.4)	212	AU/mL
SARS-CoV-2 Spike (BA.2)	143	AU/mL
SARS-CoV-2 Spike (BA.2.12.1)	128	AU/mL
SARS-CoV-2 Spike (BA.2.75)	70.7	AU/mL
SARS-CoV-2 Spike (BA.2.86)	67.7	AU/mL
SARS-CoV-2 Spike (BA.5)	165	AU/mL
SARS-CoV-2 Spike (EG.5.1)	78.9	AU/mL
SARS-CoV-2 Spike (FL.1.5.1)	77.3	AU/mL
SARS-CoV-2 Spike (HV.1)	73.0	AU/mL
SARS-CoV-2 Spike (JD.1.1)	78.7	AU/mL
SARS-CoV-2 Spike (JN.1)	57.6	AU/mL
SARS-CoV-2 Spike (JN.1 (v2))	58.6	AU/mL
SARS-CoV-2 Spike (KP.2)	55.2	AU/mL
SARS-CoV-2 Spike (KP.3)	52.8	AU/mL
SARS-CoV-2 Spike (LB.1)	47.3	AU/mL
SARS-CoV-2 Spike (XBB.1.16)	73.0	AU/mL
SARS-CoV-2 Spike (XBB.1.16.6)	58.9	AU/mL
SARS-CoV-2 Spike (XBB.1.5)	72.5	AU/mL
SARS-CoV-2 Spike(XBB.1.5 (v2))	67.9	AU/mL
SARS-CoV-2 Spike (XBB.2.3)	72.5	AU/mL
Other Respiratory Viruses		
Flu A/Ghana/39/2021 H5	26.0	AU/mL
Flu A/Massachusetts/18/2022 H3	312	AU/mL
Flu A/Wisconsin/67/2022 H1	98.9	AU/mL
Flu B/Austria/2021 HA	313	AU/mL
RSV Pre-Fusion F	286	AU/mL

This product was manufactured and tested according to MSD documents. This lot meets MSD's specifications. This product is intended for Research Use Only. Not for use in Diagnostic Procedures.

	Name	Function	Signature	Date
Review/Approval	Karen Hamilla	Quality		14 JAN 2025