## TECHNICAL BULLETIN

## □NEW TEST □ TEST CHANGE

NOTIFICATION DATE: 06/28/2024 EFFECTIVE DATE: 07/16/2024

## β2-glycoprotein 1 Antibodies, IgG, IgM, and IgA

On the effective date, as part of our commitment to providing best-in-class clinical diagnostic testing services, Northwell Health Laboratories will update the  $\beta$ 2-glycoprotein 1 Antibodies, IgG, IgM, and IgA tests improving turnaround time. The current enzyme-linked immunosorbent assay (QUANTA Lite  $\beta$ 2 GPI IgG, IgM, and IgA ELISA) will be replaced with a multiplex flow immunoassay (BioPlex 2200 APLS IgG, IgM, and IgA).

Measurement of  $\beta$ 2-glycoprotein 1 antibodies can aid in the evaluation of patients with suspected cases of antiphospholipid syndrome (APS). APS is a systemic autoimmune disease characterized by arterial, venous, or microvascular thrombosis or pregnancy morbidity in patients with persistently elevated antiphospholipid antibodies (i.e., cardiolipin antibodies or  $\beta$ 2-glycoprotein 1 antibodies and/or lupus anticoagulant). [1]

An in-house method comparison study conducted at Northwell Health Laboratories demonstrated acceptable qualitative clinical concordance between the two assays. However, it is important to note that due to differences in immunoassay design and antibody epitope recognition, direct comparison of semi-quantitative values between the two assays is not feasible, as highlighted in the table below.

Test Name	Beta 2 Glycoprotein 1 IgG Ab		Beta 2 Glycoprotein 1 IgM Ab		Beta 2 Glycoprotein 1 IgA Ab	
Test Requirements	New	Current	New	Current	New	Current
Methodology	Multiplex Flow Immunoassay	Enzyme-Linked Immunosorbent Assay	Multiplex Flow Immunoassay	Enzyme-Linked Immunosorbent Assay	Multiplex Flow Immunoassay	Enzyme-Linked Immunosorbent Assay
Assay Manufacturer	Bio-Rad Laboratories	Inova Diagnostics (WERFEN)	Bio-Rad Laboratories	Inova Diagnostics (WERFEN)	Bio-Rad Laboratories	Inova Diagnostics (WERFEN)
Result Interpretation	<20 U/mL: Negative ≥20 U/mL: Positive	≤20 SGU: Negative >20 SGU: Positive	<20 U/mL: Negative ≥20 U/mL: Positive	<pre>&lt;20 SMU:     Negative &gt;20 SMU: Positive</pre>	<20 U/mL: Negative ≥20 U/mL: Positive	≤20 SAU: Negative >20 SAU: Positive
Computer Interface Code	PDM #5905914	PDM #5905914	PDM #5905916	PDM #5905916	PDM #5905912	PDM #5905912
Test Order	B2G 1 IgG Ab	B2G 1 IgG Ab	B2G 1 IgM Ab	B2G 1 IgM Ab	B2G 1 IgA Ab	B2G 1 IgA Ab

If you have any questions, please contact Client Services at (800) 472-5757.

1. Barbhaiya M et al. The 2023 ACR/EULAR Antiphospholipid Syndrome Classification Criteria. Arthritis Rheumatol, 75: 1687-1702. https://doi.org/10.1002/art.42624

