

Primary Membranous Nephropathy Comprehensive Autoantibody Panel

Last Literature Review: November 2020 Last Update: December 2023

Primary membranous nephropathy (PMN) is a kidney-specific autoimmune disease that is the most common cause of idiopathic nephrotic syndrome among nondiabetic adults.¹ Whereas some patients will experience spontaneous remission, others will develop end-stage renal disease (ESRD) or nonprogressive chronic kidney disease (CKD) without treatment. The gold standard for diagnosis of PMN is kidney biopsy, but antibody testing is an important diagnostic tool, specifically for patients for whom complications due to biopsy are likely.² Most cases of PMN are marked by antiphospholipase A2 receptor (PLA2R) antibodies (70%) or antithrombospondin type-1 domain-containing 7A (THSD7A) antibodies (approximately 3-5%).¹ For more information, see the ARUP Consult [Primary Membranous Nephropathy](#) topic.

Test Interpretation

Results

Interpretation of Antibody Results		
Result	Antibody Detected	Clinical Significance
Positive	PLA2R (≥1:10)	Suggestive of PMN
	THSD7A (≥1:10)	Suggestive of PMN
Negative	None (<1:10)	Does not exclude PMN; biopsy recommended if clinically indicated

Interpretation of Titers

PLA2R or THSD7A antibody titers may assist in determining the course of therapy and in predicting both response to therapy and long-term outcomes.¹

Limitations

- Negative result does not rule out the diagnosis of PMN
- Results should be used in conjunction with other laboratory tests and clinical findings

References

1. Couser WG. [Primary membranous nephropathy](#). *Clin J Am Soc Nephrol*. 2017;12(6):983-997.
2. Bobart SA, De Vriese AS, Pawar AS, et al. [Noninvasive diagnosis of primary membranous nephropathy using phospholipase A2 receptor antibodies](#). *Kidney Int*. 2019;95(2):429-438.

Related Information

[Primary Membranous Nephropathy - Idiopathic Membranous Glomerulonephritis](#)

Featured ARUP Testing

[Membranous Nephropathy Comprehensive Autoantibody Panel 3003477](#)

Method: Semi-Quantitative Indirect Fluorescent Antibody

- Recommended autoantibody panel for the evaluation of individuals at risk for PMN
- Components include PLA2R antibody, IgG, and THSD7A antibody, IgG
- Reflex pattern: If PLA2R antibody, IgG is positive, then a PLA2R, IgG titer will be added; if THSD7A antibody, IgG is positive, then a THSD7A antibody, IgG titer will be added

