

TEST ID: PLA2R

PHOSPHOLIPASE A2 RECEPTOR ANTIBODIES, SERUM

USEFUL FOR

Distinguishing primary from secondary membranous nephropathy.

CLINICAL INFORMATION

Membranous nephropathy (MN) is a rare disease in which immune complexes deposit at the glomerular basement membrane, causing damage to the filtration barrier, resulting in proteinuria. Recent studies have shown that in approximately 70% of patients with primary MN (pMN), the immune complexes consist of autoantibodies against the podocyte protein M-type phospholipase A2 receptor (PLA2R).¹ There is also evidence that levels of anti-PLA2R autoantibodies correlate well with disease activity and progression.² The presence of anti-PLA2R antibodies could also potentially be used to differentiate pMN from other causes of nephrotic syndrome if a biopsy is not possible. Among patients with chronic kidney disease (CKD) awaiting kidney transplantation, higher levels of anti-PLA2R could predict those more likely to recur after transplantation.²

INTERPRETATION

Therapy outcome can be monitored by measuring the anti-phospholipase A2 receptor (PLA2R) antibody titer. A titer increase, decrease, or disappearance generally precedes a change in clinical status. Thus, the determination of the antibody titer has a high predictive value with respect to clinical remission, relapse, or risk assessment after kidney transplantation.

CAUTIONS

This test should not be used as a stand-alone test but an adjunct to other clinical information. A diagnosis of primary or secondary membranous nephropathy (MN) should not be made on a single test result. The clinical symptoms, results on physical examination, and laboratory tests (eg, serological tests), when appropriate, should always be taken into account when considering the diagnosis of primary versus secondary MN.

Absence of circulating anti-phospholipase A2 receptor (PLA2R) autoantibodies does not rule out a diagnosis of primary MN.

MOBILE APPS FROM MAYO MEDICAL LABORATORIES



Lab Catalog for iPad and Lab Reference for iPhone and iPod Touch



Requires iOS 5.1+

REFERENCE VALUES

ELISA:

Negative: <14 RU/mL

Borderline: ≥14-<20 RU/mL

Positive: ≥ 20 RU/mL

IFA: Negative

ANALYTIC TIME

Up to 7 days

CLINICAL REFERENCE

1. Beck L, Bonegio R, Lambeau G, et al: M-type phospholipase A2 receptor as target antigen in idiopathic membranous nephropathy. N Engl J Med 2009;361:11-21
2. Schlumberger W, Hornig N, Lange S, et al: Differential diagnosis of membranous nephropathy with autoantibodies to phospholipase A2 receptor 1. Autoimmun Rev 2014 Feb;13(2)108-113