
Lab Dept: Serology

Test Name: ANCA PANEL FOR VASCULITIS

General Information

Lab Order Codes: VASCP

Synonyms: Anti-Myeloperoxidase Antibodies; Autoantibodies to Myeloperoxidase; MPO; P-ANCA; Perinuclear anti-neutrophil cytoplasmic antibody; Anticytoplasmic Autoantibodies; Antineutrophil Cytoplasmic Antibodies (ACPA); Cytoplasmic Neutrophil Antibodies; Perinuclear Antineutrophil Cytoplasmic Antibodies (pANCA); Wegener's Granulomatosis (WG)

CPT Codes: 83516 x 2 – Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; qualitative or semiquantitative, multiple step method
86255 – Cytoplasmic neutrophil antibodies screen (if appropriate)
86256 – Cytoplasmic neutrophil antibodies titer (if appropriate)

Test Includes: If myeloperoxidase (MPO) antibody or proteinase 3 (PR3) antibody is ≥ 0.4 U, then cytoplasmic neutrophilic antibodies will be performed at an additional charge.

Logistics

Test Indications: Evaluating patients suspected of having autoimmune vasculitis, both Wegener's granulomatosis and microscopic polyangiitis.

Lab Testing Sections: Serology – Sendouts

Referred to: Mayo Medical Laboratories (MML Test: VASC)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 3 – 5 days

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container:	Red top tube
Draw Volume:	3 mL (Minimum: 1.5 mL) blood
Processed Volume:	1 mL (Minimum: 0.5 mL) serum
Collection:	Routine venipuncture
Special Processing:	Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic, screw-capped vial. Store and ship at refrigerated temperatures.
Patient Preparation:	None
Sample Rejection:	Gross hemolysis; gross lipemia; mislabeled or unlabeled specimens

Interpretive

Reference Range:

Myeloperoxidase Antibodies, IgG	
<0.4 U	Negative
0.4 – 0.9 U	Equivocal
>or= 1.0 U	Positive
Proteinase 3 Antibodies, IgG	
<0.4 U	Negative
0.4 – 0.9 U	Equivocal
>or= 1.0 U	Positive
Reference values apply to all ages.	
For ANCA reference ranges and test information see: Cytoplasmic Neutrophil Antibodies .	

Interpretation: Positive results for proteinase 3 (PR3) antineutrophil cytoplasmic antibodies (ANCA) and cANCA or pANCA are consistent with the diagnosis of Wegener's granulomatosis (WG), either systemic WG with respiratory and renal involvement or limited WG with more restricted end-organ involvement.

Positive results for MPL and ANCA and pANCA are consistent with the diagnosis of autoimmune vasculitis including microscopic polyangiitis (MPA) or pauci-immune necrotizing glomerulonephritis.

A positive result for PR3 ANCA or MPL ANCA has been shown to detect 89% of patients with active WG or MPA (with or without renal involvement) with fewer than 1% false-positive results in patients with other diseases.

Critical Values:

N/A

Limitations:

Sequential measurements of titers of antineutrophil cytoplasmic antibodies (cANCA) are useful to monitor the response to treatment in patients with Wegener's granulomatosis (WG). While titers often decrease following successful treatment, the results cannot be relied upon in all cases to determine the response to therapy. In individual patients, the titers of cANCA may not correlate well with response to treatment. The results of proteinase 3 (PR3) ANCA (an autoantibody with cANCA pattern) by EIA have not been shown to be useful for monitoring disease activity.

The ANCA vasculitis test panel cannot be relied upon exclusively to establish the diagnosis of autoimmune vasculitis (WG or microscopic polyangiitis [MPA]). Some patients with WG or MPA may not have measurable titer of antibodies detected by this panel of tests. Some of these patients have antibodies to other neutrophil antigens not included in the panel, eg, neutrophil elastase.

Methodology:

MPO and PR3: Multiplex Flow Immunoassay
ANCA: Indirect Immunofluorescence

References:

[Mayo Medical Laboratories](#) October 2013