

## Overview

Patients with chronic inflammatory bowel disease are typically divided by clinical, endoscopic and histopathological criteria into either Crohn's disease (CD) or ulcerative colitis (UC) categories. Antineutrophil cytoplasmic autoantibodies (ANCA), usually with an atypical perinuclear (atypical P- or X-ANCA) pattern, are frequently (50-90%) found in patients with UC, and less frequently (15-30%) in patients with CD.<sup>1-3</sup> Cytoplasmic pattern (C-ANCA) autoantibodies have been detected in UC, but may represent co-occurrence of systemic vasculitic disease.<sup>4</sup>

P-ANCA is being explored as a marker for disease severity. Some studies suggest that P-ANCA helps to define a clinical subgroup with left-sided inflammation and "UC-like" features in CD.<sup>2</sup> Bactericidal/permeability-increasing protein (BPI) is thought to be a significant minority target antigen in patients with UC and CD with "UC-like" features.<sup>5</sup> The value of using ANCA for early detection of UC in family members of those with UC has yet to be clearly established. Because as many as 12% of UC patients develop colon cancer, it is essential that the pathogenesis and possible early markers of this disease be explored more fully.<sup>6</sup>

*Saccharomyces cerevisiae* antibodies are highly specific for CD (100% specificity if both IgG and IgA are positive)<sup>7</sup>, and can be used in conjunction with ANCA testing to help differentiate between CD and UC. A positive atypical ANCA pattern in conjunction with a negative *S. cerevisiae* antibodies result is strongly suggestive of UC.<sup>7</sup>

## Clinical Utility

- P-ANCA is useful in differentiating IBD from other diarrheal disease.<sup>8</sup>
- A positive P-ANCA pattern along with a negative *S. cerevisiae* antibodies result strongly suggests UC<sup>7</sup>
- In UC and CD, P-ANCA are generally positive in patients with a more aggressive disease course and are less responsive to treatment; however, they can also be positive in patients who respond to treatment.<sup>2</sup>
- The sensitivity of ANCA testing in UC increases from 56% to 78% by combining IgG and IgA ANCA assays.<sup>9</sup>
- *Specialty* also tests for ANA as these antibodies can generate a P-ANCA-like pattern.<sup>1</sup>

## Ordering Information and Specimen Requirements

Test Code	Test Name	Specimen Requirements	Set up Schedule	Assay Time
1866	<b>PAN-ANCA™ Evaluation</b> ANCA IgG, IgM, IgA and pattern, ANA and pattern, Myeloperoxidase Autoantibodies, Proteinase-3 Autoantibodies. (Now with atypical ANCA pattern reporting)	2 mL Serum; Ambient, Refrigerated or Frozen	Monday- Saturday	1-3 days
1868	<b>PAN-ANCA™ PLUS</b> ANCA IgG, IgM, IgA and pattern, Myeloperoxidase, Proteinase-3, ANA and pattern, BPI IgG Autoantibodies, h-Lamp-2 IgG Autoantibodies (Now with atypical ANCA pattern reporting)	3 mL Serum; Ambient, Refrigerated or Frozen	Monday- Saturday	1-15 days

**Specify "Send PAN-ANCA™ Evaluation to Specialty Laboratories"  
For immediate attention and sample pick-up, call 800-421-4449.**

## Methodology

PAN-ANCA™ PLUS, Indirect Fluorescent Antibody, Flow Cytometry, Enzyme Immunoassay  
BPI Protein Autoantibodies, Enzyme Immunoassay

## Related Tests

**1445** *Saccharomyces cerevisiae* IgG & IgA Antibodies DetectR™ (high specificity for Crohn's Disease)

**4072** Bacterial Permeability-Increasing (BPI) Protein Autoantibodies Evaluation, BPI IgG, IgM, IgA

**1862** Antineutrophil Cytoplasmic Autoantibodies

**1357** HLA-DR2

The possibility of HLA-DR2 as a predisposing genetic factor in UC is disputed, but there is stronger evidence of an association with poor prognosis.

## References

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