

IBD Differentiation Panel

Test Code: 701264

Clinical Use

- Assists physicians in differentiating Crohn's Disease from Ulcerative Colitis
- Early and accurate differential diagnosis may be critical, given the severity of potential complications
- Useful in stratification of Crohn's Disease subtypes¹
- High predictive value in children with IBD symptoms – may reduce need for further invasive testing²

Panel Includes

- ANCA Screen with reflexes to P-ANCA, C-ANCA, and Atypical P-ANCA Titers
- Anti-Saccharomyces cerevisiae (ASCA) IgG and IgA
- Myeloperoxidase Antibody (MPO)
- Proteinase-3 Antibody

Clinical Background

Crohn's Disease (CD) and Ulcerative Colitis (UC) are the most common forms of Inflammatory Bowel Disease (IBD), a broad category of conditions marked by inflammation of the intestines. Although UC and CD are typically differentiated on the basis of clinical, radiographic, and endoscopic findings, distinguishing between these conditions can be difficult in about 10% to 15% of patients, especially when disease is confined to the colon. Because the treatment and prognosis of UC and CD differ, accurate diagnosis is critical for management.

Numerous studies have investigated the utility of 2 serologic markers, perinuclear anti-neutrophil cytoplasmic antibody (pANCA) and anti-*Saccharomyces cerevisiae* antibody (ASCA), in differentiating between UC and CD. The pANCA associated with IBD differs from that found in the vasculitides, having an "atypical" perinuclear staining pattern that can be identified by differential staining patterns with ethanol and

formalin fixation. This atypical pANCA is found in about 50% to 80% of UC patients but only 10% to 30% of those with CD. ASCA, on the other hand, is more common in CD (46% to 70%) than in UC (6% to 12%).^{3,4} The combination of these markers has high specificity for UC (94% to 97%; pANCA+/ASCA-) and CD (81% to 98%; ASCA+/pANCA-).⁵ Serologic results can also assist in stratification of CD: pANCA-positive CD is associated with a clinical phenotype similar to that of UC (UC-like CD),⁴ while positivity for ASCA IgG and IgA is associated with non-UC-like disease.⁶ Several reports have noted the potential utility of serologic testing, combined with other clinical and laboratory information, to identify children with suspected IBD who may not require invasive testing.^{2,7}

Specimen Requirements

2.0 mL refrigerated serum from a plain red-top tube or serum separator tube (1.4 mL minimum).

CPT Codes*

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|-----------|------------------------|-------|
| Screen: | 86021 x3, 86671 x2 | |
| Reflexes: | P-ANCA Titer: | 86021 |
| | C-ANCA Titer: | 86021 |
| | Atypical P-ANCA Titer: | 86021 |

Method

- Enzyme Linked Immunosorbent Immunoassay/Immunoassay

References

1. Klebl FH, Bataille F, Berthea CR, et al. Association of perinuclear antineutrophil cytoplasmic antibodies and anti-*Saccharomyces cerevisiae* antibodies with Vienna classification subtypes of Crohn's disease. *Inflamm Bowel Dis*. 2003;9:302-307.
2. Dubinsky MC, Ofman JJ, Urman M, et al. Clinical utility of serodiagnostic testing in suspected pediatric inflammatory bowel disease. *Am J Gastroenterol*. 2001;96:758-765.
3. Savige J, Dimech W, Fritzler M, et al. Addendum to the International Consensus Statement on testing and reporting of antineutrophil cytoplasmic antibodies. Quality control guidelines, comments, and recommendations for testing in other autoimmune diseases. *Am J Clin Pathol*. 2003;120:312-318.
4. Abreu MT, Vasiliauskas EA, Kam LY, et al. Use of serologic tests in Crohn's disease. *Clinical Perspectives in Gastroenterology*. 2001;4:155-164.
5. Reumaux D, Sendid B, Poulain D, et al, Colombel JF. Serological markers in inflammatory bowel diseases. *Best Pract Res Clin Gastroenterol*. 2003;17:19-35.
6. Walker LJ, Aldhous MC, Drummond HE, et al. Anti-*Saccharomyces cerevisiae* antibodies (ASCA) in Crohn's disease are associated with disease severity but not NOD2/CARD15 mutations. *Clin Exp Immunol*. 2004;135:490-496.
7. Bartunkova Kolarova I, Sediva A, et al. Antineutrophil cytoplasmic antibodies, anti-*Saccharomyces cerevisiae* antibodies, and specific IgE to food allergens in children with inflammatory bowel diseases. *Clin Immunol*. 2002;102:162-168.

*The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payor being billed.