**FUNCTION:**

Saccharomyces cerevisiae, baker’s yeast, contains Chl1p, a putative helicase with human homologs (anti-Saccharomyces cerevisiae antibody – ASCA), is required for DNA repair, recombination, transcriptional silencing and aging. Anti-neutrophil cytoplasmic antibodies (ANCAs) are a group of autoantibodies against antigens in the cytoplasm of neutrophil granulocytes and monocytes.

**ANTIBODIES APPEAR:**

Behçet’s Syndrome with GI Involvement
Crohn’s Disease
Long-term use of Anti-Thyroid Medication
Ulcerative Colitis
Vasculitis

**KNOWN CROSS-REACTIONS:**

Mannan⁴, enteric bacterial antigens⁶

**CLINICAL SIGNIFICANCE:**

Crohn’s disease (CD) and Behçet’s syndrome (BS) have clinical similarities such as oral and gastrointestinal ulcerations, erythema nodosum, arthritis and uveitis.¹ Patients with BS who present with gastrointestinal complaints have higher levels of ASCA than BS patients with no GI conditions.¹

Vasculitides, associated with serum positivity for ANCAs affecting small- to medium-sized vessels, are commonly recognized as ANCA-associated vasculitis.² ANCAs are detected in a number of autoimmune disorders, but are particularly associated with systemic vasculitis.² ANCA positivity has been shown in a high percentage of patients on long-term anti-thyroid medication; therefore, ANCA should be tested in patients receiving long-term anti-thyroid medications, and in patients with adverse reactions.³ Furthermore, patients with positive ANCA should be followed, and evaluated for definitive anti-thyroid therapy, to consider alternative treatment protocols.³

ASCA and ANCA are well-established markers in inflammatory bowel disease (IBD), and both may be associated with disease phenotype.¹ ² ⁵ In support of diagnosis of Ulcerative Colitis, the sensitivity and specificity of ANCA were 51% and 100%, respectively. ASCA presented sensitivity of 62% and specificity of 93% for Crohn’s disease.⁵

**References:**