



## ASCA + ANCA

### 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 (ANCA) are a group of autoantibodies against antigens in the cytoplasm of neutrophil granulocytes and monocytes.

### ANTIBODIES APPEAR:

Behçet's Syndrome with GI Involvement<sup>1</sup>  
 Crohn's Disease<sup>1,2</sup>  
 Long-term use of Anti-Thyroid Medication<sup>3</sup>  
 Ulcerative Colitis<sup>5</sup>  
 Vasculitis<sup>2</sup>

### KNOWN CROSS-REACTIONS:

Mannan<sup>4</sup>, enteric bacterial antigens<sup>6</sup>

### 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.<sup>1</sup> Patients with BS who present with gastrointestinal complaints have higher levels of ASCA than BS patients with no GI conditions.<sup>1</sup>

Vasculitides, associated with serum positivity for ANCA affecting small- to medium-sized vessels, are commonly recognized as ANCA-associated vasculitis.<sup>2</sup> ANCA are detected in a number of autoimmune disorders, but are particularly associated with systemic vasculitis.<sup>2</sup> 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.<sup>3</sup> Furthermore, patients with positive ANCA should be followed, and evaluated for definitive anti-thyroid therapy, to consider alternative treatment protocols.<sup>3</sup>

ASCA and ANCA are well-established markers in inflammatory bowel disease (IBD), and both may be associated with disease phenotype.<sup>1,2,5</sup> 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.<sup>5</sup>

### References:

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