

CLINICAL SPECIFICATIONS

ASCA + ANCA (saliva)

Function:

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

Antibodies Appear:

Crohn's disease⁷
 Sjögren's syndrome²

Known Cross-Reactions: Mannan,⁴ enteric bacterial antigens⁶

Clinical Significance:

Elevated salivary antibodies to ASCA have been detected in patients with diagnosed Crohn's disease when compared to non-irritable bowel disease and non-disease control groups.⁷

Elevated salivary antibodies to ANCA have been detected in patients with diagnosed Sjögren's syndrome coupled with vascular manifestations, including cutaneous vasculitis, Raynaud's phenomenon and peripheral neuropathy.²

Serum ASCA and ANCA antibodies are well-established markers in inflammatory bowel disease (IBD), and both may be associated with disease phenotype.^{1, 3, 5}

Suggested Reading:

1. Fresko, et al. Anti-*Saccharomyces cerevisiae* antibodies (ASCA) in Behçet's syndrome. Clin Exp Rheumatol, 2005; 23(Suppl.38):S67-S70.
2. Font, et al. Antineutrophil cytoplasmic antibodies in primary Sjögren's syndrome: prevalence and clinical significance. Rheumatol, 1998; 37(12):1287-1291.
3. Gómez-Puerta, et al. Antineutrophil cytoplasmic antibody-associated vasculitides and respiratory disease. Chest, 2009; 136:1011-1111.
4. Lindberg, et al. Antibody (IgG, IgA, and IgM) to baker's yeast (*Saccharomyces cerevisiae*), yeast mannan, gliadin, ovalbumin and betalactoglobulin in monozygotic twins with inflammatory bowel disease. Gut, 1992; 33(7):909-913.
5. Nishihara, et al. Diagnostic role and clinical association of ASCA and ANCA in Brazilian patients with inflammatory bowel disease. Dig Dis Sci, 2010; 55(8):2309-2315.
6. Seibold, et al. pANCA represents a cross-reactivity to enteric bacterial antigens. Clin Immunol, 1998; 18(2):153-160.
7. Thomsen, et al. Anti-saccharomyces cerevisiae antibodies (ASCA) are present in the saliva of Crohn's disease patients and are useful as an alternative to serum antibodies for diagnosis of Crohn's disease. Gastroenterol, 2000; 95:2503-2513; 4:20-32.