



Candida + IBS Profile

Key Clinical Messages

What is the Candida + IBS Profile?

The Candida + IBS Profile assesses the presence of fungal overgrowth, antibody levels associated with irritable bowel syndrome (IBS), and autoimmune-related alterations in intestinal motility.

Why Order the Candida + IBS Profile?

Fungal overgrowth can be the underlying cause of many chronic inflammatory symptoms or conditions. Fungal overgrowth symptoms can be identical to many other systemic infections, requiring highly accurate lab testing to provide definitive answers. For example, concomitant fungal infections are common in patients with toxic mold exposure, so detecting and treating fungal infections supports a return to health and wellbeing.

Additionally, antibodies to fungal microorganisms can often provide clues to fungal overgrowth in the body that are otherwise difficult to detect. For example, Vibrant's Gut Zoomer measures *Candida* DNA, (the "gold standard" for pathogen detection). However, sometimes *Candida* is not present in the stool sample provided because *Candida* is "hiding" in intestinal biofilms or living in extraintestinal body compartments (e.g., cutaneous candidiasis). In these instances, antibody testing is the next best way to identify *Candida* infections.

The Candida + IBS profile provides insight on current or past fungal infection through the detection of IgM and pooled IgG + IgA antibodies to the fungal antigens tested. Elevated levels of antibodies are suggestive of fungal hypersensitivity, overgrowth, or colonization that may otherwise be difficult to detect due to biofilm formation.

The Candida + IBS profile also provides insight on past gastroenteritis and foodborne illness impact on the migrating motor complex (MMC). Specifically, IgG antibodies to CdtB indicates past evidence of gastroenteritis, and IgG antibodies to vinculin indicate autoimmunity and is associated with MMC disturbance and post-infectious IBS subtypes, specifically IBS-D (IBS-diarrhea) and IBS-M (IBS-mixed type).

Regulatory Statement:

This test has been laboratory developed and their performance characteristics determined by Vibrant America LLC, a CLIA-certified laboratory performing the test CLIA#:05D2078809. The test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Although FDA does not currently clear or approve laboratory-developed tests in the U.S., certification of the laboratory is required under CLIA to ensure the quality and validity of the tests.

Which Patients Benefit From This Test?

Conditions, signs, and risks associated with fungal infection, gastroenteritis, and post-infectious IBS:

- **Gastrointestinal:** oral thrush, bad breath (halitosis), heartburn, gas, bloating, constipation, diarrhea, inflammation, irritable bowel syndrome
- **Skin:** acne, dandruff, anal itching, nail fungus, discolored nails, dermatitis, hives
- **Neurological:** poor memory, peripheral neuropathy (tingling in hands, feet), anxiety, mood swings, brain fog, chronic fatigue
- **Endocrine:** adrenal and thyroid malfunction, impotence, sex hormone imbalances (especially estrogen dominance)
- **Urogenital:** Recurring yeast infections (skin, nail, vaginal, and/or penile), interstitial cystitis (bladder pain syndrome)

Which Tests Pair Well With the Candida + IBS Profile?

- **Total Immunoglobulins** – to investigate impact of acute, chronic, and recurrent infections on immune function. It is helpful to add Total Immunoglobulins to any antibody test as normal antibody levels are needed for accurate interpretation.
- **Gut Zoomer** – to investigate presence of fecal Candida, co-infections, or other dysbiotic microbiota, drivers of inflammation, intestinal hyperpermeability, and/or elevated beta-glucuronidase impacting detoxification and elimination.
- **Mycotoxins** – to measure mycotoxin excretion in urine and gain insight on mold exposure from both dietary and environmental sources contributing to total toxic burden.
- **Heavy Metals** – to measure heavy metal excretion in urine and gain insight on heavy metals exposure contributing to total toxic burden.
- **Environmental Toxins** – to measure environmental toxin excretion in urine and gain insight on environmental toxins exposure contributing to total toxic burden.
- **Organic Acids** – Based on known metabolic pathways and enzyme-cofactor requirements, these organic acid markers can provide insights in discovering underlying causes of metabolic dysfunction. The comprehensive test includes a Yeast and Fungal Markers panel to assess for the colonization of yeast and presence of fungal organic acid metabolites which may be contributing to core clinical imbalances.

Test Prep

- **Fasting Required:** No
- **Dietary Restrictions:** None.
- **Medication Restrictions:** None, however steroids, immunosuppressive medications, biologic agents, or other immunomodulating medications may falsely lower or falsely increase total and specific immunoglobulin results.

Reference Ranges

Candida

Vibrant assigns a numerical value to quantify the antibodies measured by chemiluminescent signal on a proprietary microchip. Antibody levels are calculated by comparing the patient's average intensity to that of a healthy reference population. Reference ranges were established using 192 healthy individuals.

- **In Control (no reactivity):** Antibody levels <92.5 percentile. Reference range ≤ 10.0
- **Moderate Reactivity:** Antibody levels between the 92.5 and 97.5 percentile. Reference range 10.1-19.9
- **High Reactivity:** Antibody levels >97.5 percentile. Reference range ≥ 20

IBS Profile

The test results of IgG antibody levels to Vinculin and CdtB are calculated by comparing the average intensity of the respective antibody to that of a healthy reference population. Reference ranges have been established using a sample cohort comprising of 96 IBS-D, 96 IBD, 96 celiac and 192 healthy serum samples.

- **In Control:** Reference range ≤ 10.0
- **Moderate Reactivity:** Reference range 10.1-19.99
- **High Reactivity:** Reference range ≥ 20

What Markers Are Included on Vibrant's Candida + IBS Profile?

Vibrant's Candida + IBS test measures IgM and pooled IgG + IgA antibodies to 8 *Candida* species, 1 *Saccharomyces* species, 1 *Trichosporon* species, *Cladosporium*, and IgG antibodies to vinculin and CdtB.

- *Candida albicans*
- *Candida dubliniensis*
- *Candida glabrata*
- *Candida guilliermondii*
- *Candida krusei*
- *Candida lusitanae*
- *Candida parapsilosis*
- *Candida tropicalis*
- *Cladosporium*
- *Saccharomyces cerevisiae*
- *Trichosporon ovoides*
- Cytolethal distending toxin B
- Vinculin

Why Vibrant?

- Fully automated
- High sensitivity
- Rapid turnaround time

Vibrant is a CLIA-certified and CAP-accredited lab.

Methodology

The Candida + IBS Profile uses chemiluminescence protein microarray technology to aid in the specific recognition of antibodies to fungi, vinculin, and CdtB.