



Bartonella ImmunoBlot

IgM and IgG

PURPOSE

The *Bartonella* IgM and IgG ImmunoBlots are designed to detect IgM and IgG antibodies to *Bartonella* species including *Bartonella henselae*, *B. quintana*, *B. elizabethae* and *B. vinsonii* antigens in serum of patients suspected of having a *Bartonella* infection. For diagnostic purposes, the *Bartonella* ImmunoBlot test results should be used in conjunction with clinical symptoms and other evidence available to the diagnosing physician.

PRINCIPLE

ImmunoBlotting is a form of testing that uses multiple pure, recombinant proteins sprayed in precise amounts at specific positions on the test strips to dramatically increase accuracy. It has long been considered the gold standard in infectious disease testing due to its superior sensitivity and specificity.

The *Bartonella* ImmunoBlot assay is based upon an antigen-antibody complex formation in the following steps:

1. Binding of anti-*Bartonella* specific antibodies in human serum to the ImmunoBlot strip. The ImmunoBlot strip is a membrane strip with fixed recombinant antigens on it.
2. Binding of enzyme labeled anti-human IgG or IgM antibodies to the human anti-*Bartonella* antibodies bound to fixed *Bartonella* antigens on the membrane.
3. Reaction with BCIP/NBT, a chromogenic substrate with bound antibodies on the strip. A dark purple colored precipitate (band) develops on the antigen-antibody complexes.

PERFORMANCE CHARACTERISTICS

Sensitivity: 15 samples were blood-culture positive for *Bartonella* and validated with PCR. All 15 samples were positive by either ImmunoBlot IgM and/or IgG. **Specificity:** Based on a study performed on 34 well-characterized clinical samples, of which 10 of the samples were negative for *Bartonella* and positive for antibodies to other tick-borne pathogens, the specificity of the *Bartonella* ImmunoBlot test is 100%.

ADVANTAGES

- Far broader and more inclusive of *Bartonella* species than standard serologies
- More sensitive than Western Blots and/or Immunofluorescence assays (IFA), especially early in the disease
- 100% specificity, meaning there is little chance of a false positive
- Detects the full spectrum of disease: early, active and late-stage disease
- Detects antibodies to *Bartonella* species and strains from North America, Europe, and Australia

INCLUDED ANTIGENS

- *B. henselae*
- *B. elizabethae*
- *B. quintana*
- *B. vinsonii*

SAMPLE REQUIREMENT: 1.0 ml serum
TEST NUMBER: 374* Bartonella IgM ImmunoBlot
384* Bartonella IgG ImmunoBlot
CPT CODE: 86611 x2, 86317 x3

*Tests/Panels not available for NY Residents