



# TBRF ImmunoBlot

## IgM and IgG

Now approved by New York State  
Department of Health

### PURPOSE

Borreliosis is caused by two groups of *Borrelia*, *B. burgdorferi* group and the Tick-Borne Relapsing Fever (TBRF) *Borrelia* group. It was believed that *B. burgdorferi* group is the only group that causes Lyme-like symptoms. However, we now know that TBRF *Borrelia* too causes Lyme-like symptoms. Symptoms caused by both these *Borrelia* groups are often confused with MS, Chronic fatigue, Osteo-arthritis, and ALS. *B. burgdorferi* is transmitted by hard ticks (*Ixodes*) whereas TBRF *Borrelia* can be transmitted by hard and soft (*Ornithodoros*) ticks. The Tick-Borne Relapsing Fever (TBRF) *Borrelia* immunoblot is designed to detect antibodies to specific antigens of TBRF *Borrelia* in human serum. For diagnostic purposes, immunoblot test results should be used in conjunction with a patient's clinical history, symptoms and other evidence available to the diagnosing physician.

### PRINCIPLE

The TBRF ImmunoBlot Test is a qualitative assay that detects TBRF *Borrelia* specific IgM and IgG antibodies in human serum. Recombinant *Borrelia* species antigens are sprayed at specific positions onto a nitrocellulose membrane and cut into strips. These strips are used to detect TBRF specific antibodies in patient serum.

### PERFORMANCE CHARACTERISTICS

The specificity of the TBRF ImmunoBlot is 92% for IgM and 100% for IgG based on a study performed on 50 samples provided by the CDC. (This included 40 samples from patients with other diseases and 10 from healthy controls living in TBRF endemic regions.)

### ADVANTAGES

TBRF ImmunoBlot detects antibodies to TBRF *Borrelia* species from North America, European and Australia strains. This is based on our studies on over 500 patient sera. The most common species detected were:

- TBRF *Borrelia* genus
- *B. burgdorferi*
- *B. hermsii*
- *B. turicatae*
- *B. parkerii*\*
- TBRF spp.

SAMPLE REQUIREMENT: 0.5 ml serum

TEST NUMBER: \*345 TBRF ImmunoBlot IgM  
\*346 TBRF ImmunoBlot IgM speciation  
\*355 TBRF ImmunoBlot IgG  
\*356 TBRF ImmunoBlot IgG speciation

CPT CODE: 043U, 044U, 86619, 86609 X3

\*Not approved in New York.