

VIASURE MULTIPLEX

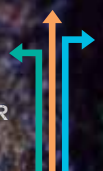
Tick Borne Diseases / Real Time PCR Detection Kit

Pathogen and product description

VIASURE Tick Borne Diseases Real Time PCR Detection Kit is designed for the specific identification and differentiation of viral RNA or genomic DNA specific for Tick Borne Encephalitis Virus (TBEV), *Rickettsia* spp., *Babesia microti*, *Babesia divergens*, *Ehrlichia chafeensis*, *Ehrlichia muris*, *Borrelia burgdorferi sensu lato* (s.l.), *Borrelia miyamotoi* and/or *Borrelia hermsii*, *Anaplasma phagocitophilum* and/or *Coxiella burnetii* in blood, serum, tissue samples and microbiological culture from ticks, biopsy skin, cerebrospinal fluid (CSF) and synovial fluid from patients with signs and symptoms of Tick Borne diseases. This test is intended for use as an aid in the diagnosis of Tick Borne diseases in combination with clinical and epidemiological risk factors. RNA/DNA is

extracted from clinical specimens, multiplied using Real Time amplification and detected using fluorescent reporter dye probes specific TBEV, *Rickettsia* spp., *Babesia microti*, *Babesia divergens*, *Ehrlichia chafeensis*, *Ehrlichia muris*, *Borrelia burgdorferi sensu lato* s.l., *Borrelia miyamotoi* and *Borrelia hermsii*, *Anaplasma phagocitophilum* and *Coxiella burnetii*.

Tick Borne diseases comprise a group of infections transmitted to humans by the bite of ticks infected with bacteria, viruses, or parasites. Tick Borne diseases affecting humans include: Lyme disease, relapsing fever, babesiosis, anaplasmosis, ehrlichiosis, Q fever, Tick Borne encephalitis and spotted fever among others.



Analytical sensitivity

VIASURE Tick Borne Diseases Real Time PCR Detection Kit has a detection limit of ≥ 10 RNA/DNA copies per reaction (figures 1, 2, 3, 4, 5, 6 and 7).

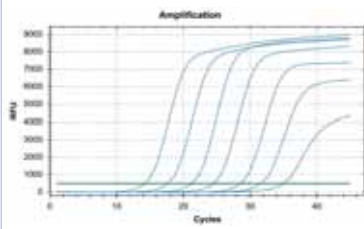


Figure 1. Dilution series of *Borrelia burgdorferi*/*Borrelia miyamotoi*/*B. hermsii* (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix *Borrelia*, *Anaplasma* & *Coxiella*, channel FAM).

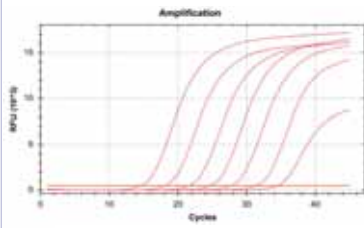


Figure 2. Dilution series of *Anaplasma phagocitophilum* (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix *Borrelia*, *Anaplasma* & *Coxiella*, channel ROX).

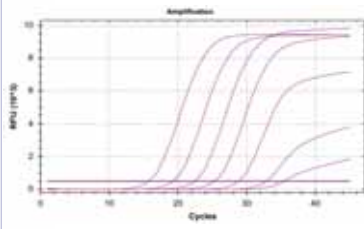


Figure 3. Dilution series of *Coxiella burnetii* (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix *Borrelia*, *Anaplasma* & *Coxiella*, channel Cy5).

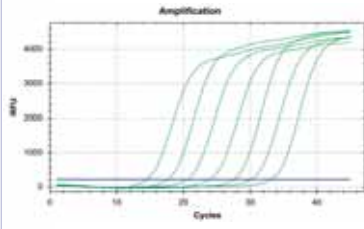


Figure 4. Dilution series of *Rickettsia* spp (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix *Rickettsia*, *Babesia* & *Ehrlichia*, channel HEX).

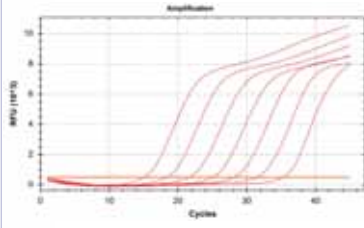


Figure 5. Dilution series of *Babesia microti*/*Babesia divergens* (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix *Rickettsia*, *Babesia* & *Ehrlichia*, channel ROX).

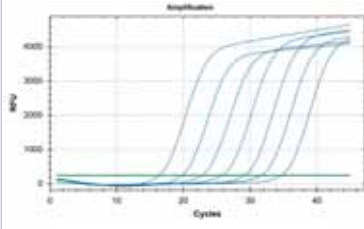


Figure 6. Dilution series of *Ehrlichia chafeensis*/*Ehrlichia muris* (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Multiplex reaction mix *Rickettsia*, *Babesia* & *Ehrlichia*, channel FAM).

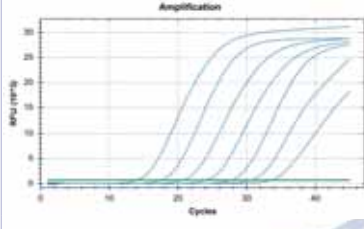


Figure 7. Dilution series of TBEV (10^7 - 10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (Monoplex reaction mix TBEV, channel FAM).

Components

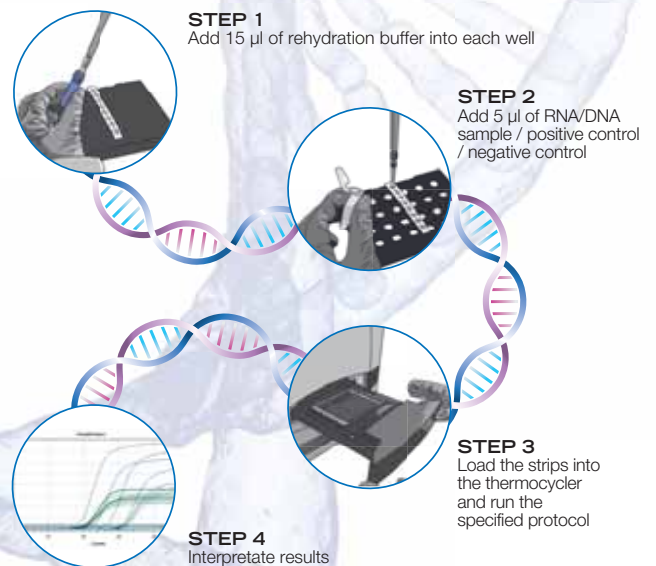
Reagent/Material	Description	Colour	Amount
<i>Borrelia</i>, <i>Anaplasma</i> & <i>Coxiella</i> 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	White	3/6 x 8-well strip
<i>Rickettsia</i>, <i>Babesia</i> & <i>Ehrlichia</i> 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	White	3/6 x 8-well strip
TBEV 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	White	3/6 x 8-well strip
Rehydration Buffer	Solution to reconstitute the stabilized product	Blue	1 vial x 1,8 mL
Tick Borne Diseases Positive Control	Non-infectious synthetic lyophilized cDNA	Red	1 vial
Negative Control	Non template control	Violet	1 vial x 1 mL
Water RNase/DNase free	Water RNase/DNase free	White	1 vial x 1 mL
Tear-off 8-cap strips	Optical caps for sealing Wells during thermal cycling	Transparent	6/12 x 8-cap strip

Kit References

Reference	Description
VS-TBD106L	VIASURE Tick Borne Diseases Real Time PCR Detection Kit 6 strips, low profile.
VS-TBD106H	VIASURE Tick Borne Diseases Real Time PCR Detection Kit 6 strips, high profile.
VS-TBD112L	VIASURE Tick Borne Diseases Real Time PCR Detection Kit 12 strips, low profile.
VS-TBD112H	VIASURE Tick Borne Diseases Real Time PCR Detection Kit 12 strips, high profile.

Work Flow

One-step rehydration of wells and add your extracted DNA



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