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## Product Data Sheet

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Product Name: B.Microti p41

Cat. No.: GP22825

Batch No.: 1

### Product Data

Purity >98%

Source Sf9 insect cells.

Physical  
Appearance solid

Shipping  
Condition Shipped with Ice Packs.

Formulation B.Microti p41 is supplied in 20mM HEPES buffer pH-7.6, 250mM NaCl and 20% glycerol.

### Introduction

Babesiosis is a disease caused by apicomplexan parasites of the Babesia genus. The Babesia microti life cycle involves 2 hosts, which include a rodent, mainly the white-footed mouse (*Peromyscus leucopus*) and a tick in the Ixodes genus. During a blood meal, a Babesia-infected tick introduces sporozoites into the mouse host. Sporozoites pass into the erythrocytes and undergo asexual reproduction (budding). In the blood, some parasites differentiate into male and female gametes, though these cannot be distinguished by light microscopy. The definitive host is the tick. Once ingested by a proper tick, gametes unite and undergo a sporogonic cycle resulting in sporozoites. Transovarial transmission (aka vertical or hereditary transmission) has been detected for "large" Babesia species but not for the "small" Babesia, such as *B. microti*. Humans enter the cycle when bitten by the infected ticks. Thus during a blood meal, a Babesia-infected tick introduces sporozoites into the human host. Sporozoites then enter erythrocytes and undergo asexual replication (budding). Multiplication of the blood-stage parasites is responsible for the clinical manifestations of the disease. Humans typically are dead-end hosts. However, human-to-human transmission is well acknowledged to occur via contaminated blood transfusions.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

### Background

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Recombinant Babesia Microti p41 produced in SF9 is a glycosylated, polypeptide chain having a calculated molecular mass of 38kDa. B. Microti p41 is expressed with a 6xHis tag at N-terminus and purified by proprietary chromatographic techniques.

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