Bartonella henselae, Strain Zeus

Catalog No. NR-31835

For research use only. Not for human use.

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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: Bartonellaceae, Bartonella
Species: Bartonella henselae
Strain: Zeus

Note: The strain designation on the vial label for lot 61660644 is incorrect. The correct strain designation is Zeus.

Original Source: Bartonella henselae (B. henselae), strain Zeus was isolated in March 1995 from the blood of a domestic house cat (Felis catus) in San Francisco, California, USA.¹

Comments: Bartonella spp. are fastidious, slow-growing, Gram-negative rods that are dependent on blood or hemin for growth. Bartonella exist in two niches – the gut of arthropod vectors and the bloodstream of the mammalian reservoir. They are incapable of living freely in the environment (with the exception of living in excreted feces from the arthropod vectors they reside in).³ Bartonella infection of the mammalian host occurs when the organisms gain entry through feces that is deposited at the site of an infected arthropod bite. The mammal then self-inoculates by scratching the bite. Well known human maladies that result from Bartonella spp. infection are Cat Scratch Disease (B. henselae, cat flea), Trench Fever (B. quintana, human body louse), and Carrión’s Disease (B. bacilliformis, sandfly). Host specificity has been observed for Bartonella spp. when both arthropod and mammalian hosts are known.⁴ Known virulence factors include a type IV secretion system, a family of hemin binding protein and outer membrane adhesions.⁵⁶

In addition to Cat Scratch Disease, B. henselae infections cause bacillary angiomatosis-peliosis in humans and are also associated with lymph-node disease and parenchymal peliosis of the liver and spleen.⁷

Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in Heart Infusion broth supplemented with 12.5% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:
NR-31835 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:
Note: B. henselae, strain Zeus demonstrated poor growth in broth.

Media:
Heart Infusion broth or equivalent
Bartonella Chocolate agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

Incubation:
Temperature: 37°C
Atmosphere: Aerobic with 5% CO₂

Propagation:
1. Keep vial frozen until ready for use; thaw slowly.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or plate at 37°C for 7 to 8 days.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Bartonella henselae, Strain Zeus, NR-31835.”

Biosafety Level: 2

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References:

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