Coccidioides posadasii, Δchs5

Catalog No. NR-4548

For research use only. Not for human use.

Contributor and Manufacturer:
University of Toledo, Toledo, Ohio and California State University, Bakersfield Foundation, Bakersfield, California

Product Description:
Classification: Mitosporic Onygenales, Coccidioides
Species: Coccidioides posadasii
Strain/Isolate: Δchs5
Comment: NR-4548 was derived from Coccidioides posadasii (C. posadasii) strain C735 by selective disruption of the chitin synthase 5 (chs5) gene.1 The strain is incapable of forming arthroconidia or spherules, or of reproduction in the parasitic phase, thereby rendering it avirulent.2,3 The strain was tested in a murine model of coccidioidomycosis and confirmed to be avirulent.2,3 The whole genome shotgun sequence of C. posadasii C735 ΔSOVwp [a transgenic strain of C. posadasii C735 that has had the spherule outer wall glycoprotein (SOWgp) gene deleted] is available (GenBank: ACFW00000000).

C. posadasii is a pathogenic fungus that, along with C. immitis, can cause mild to fatal respiratory disease (coccidioidomycosis, San Joaquin Valley fever, desert rheumatism) in both immunocompetent and immunocompromised individuals. C. posadasii resides in the soil in certain parts of southwestern United States, northern Mexico, and certain other areas in the Americas.

Material Provided:
Each vial of NR-4548 contains approximately 1 mL of fungal culture containing 10% DMSO.

Packaging/Storage:
NR-4548 was packaged aseptically in cryovials and is provided frozen on dry ice. The product should be stored at -70°C or colder.

Growth Conditions:
Media:
GYE (1% glucose, 0.5% yeast extract) Broth or Agar containing hygromycin. Note: The addition of 100 mM KCl may enhance growth as the culture is osmotically fragile.

Incubation:
Temperature: 27°C to 37°C
Atmosphere: Aerobic

Propagation:
1. Keep vial frozen until ready for use; thaw rapidly.
2. Transfer the entire thawed aliquot into GYE broth.
3. Incubate with shaking at 27°C to 37°C for 48 hours.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Coccidioides posadasii, Δchs5, NR-4548."

Biosafety Level: 2

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NR-4548 is claimed in U.S. Patent Number 7,332,324 and the continuations, continuations-in-part, re-issues and foreign counterparts thereof.
References:

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