

Cryptococcus gattii, Strain C6

Catalog No. NR-50422

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Classification: Tremellaceae, Cryptococcus

Species: Cryptococcus gattii

Strain: C6

Original Source: Cryptococcus gattii (C. gattii), strain C6 was isolated from an unknown human source (probably cerebrospinal fluid) in the Pacific Northwest region of North America.¹

Comments: C. gattii, strain C6 was deposited as lineage VGIIa and resistant to azoles.¹

The *Cryptococcus* species complex is comprised of four distinct lineages, VGI to VGIV, which are currently classified as two species, *C. neoformans* and *C. gattii*. These species are best recognized as the agents of cryptococcosis, an AIDS-defining illness.^{2,3}

C. gattii are characterized serologically as serotypes B and C, and clinical isolates are relatively rare.³ Although cryptococcosis was historically considered to be a tropical and subtropical illness, in the late 1990s, cryptococcal disease in healthy people, domestic pets and wildlife caused by *C. gattii* appeared on Vancouver Island, British Columbia and it subsequently spread to the mainland and into the northwest United States.²⁻⁴ *C. gattii* strains from the Pacific Northwest are more likely to exhibit azole drug resistance than non-Pacific Northwest *C. gattii* strains or *C. neoformans*.^{5,6}

Material Provided:

Each vial contains approximately 0.5 mL of culture in 20% glycerol.

Packaging/Storage:

NR-50422 was packaged aseptically in cryovials and is provided frozen on dry ice. The product should be stored at -80°C or colder.

Growth Conditions:

Media:

Yeast Mold broth or equivalent

Yeast Mold agar or Modified Sabouraud Dextrose agar or equivalent

Incubation:

Temperature: 25°C

Atmosphere: Aerobic

Propagation:

1. Keep vial frozen until ready for use; thaw rapidly.
2. Inoculate an agar plate with approximately 50 µL of thawed culture and/or transfer the entire thawed aliquot into a single tube of broth
3. Incubate the plate and/or tube at 25°C for 2 to 4 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Cryptococcus gattii*, Strain C6, NR-50422."

Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Wong, B. and I. Bruzual, Personal Communication.
2. Zhu, P., et al. "Congenic Strains for Genetic Analysis of Virulence Traits in *Cryptococcus gattii*." *Infect. Immun.* 81 (2013): 2616-2625. PubMed: 23670558.
3. Diaz, M. R. and J. W. Fell. "Use of a Suspension Array for Rapid Identification of the Varieties and Genotypes of *Cryptococcus neoformans* Species Complex." *J. Clin. Microbiol.* 43 (2005): 3662-3672. PubMed: 16081894.
4. Kidd, S. E., et al. "A Rare Genotype of *Cryptococcus gattii* Caused the Cryptococcosis Outbreak on Vancouver Island (British Columbia, Canada)." *Proc. Natl. Acad. Sci. USA* 101 (2004): 17258-17263. PubMed: 15572442.
5. Gast, C. E., et al. "Azole Resistance in *Cryptococcus gattii* from the Pacific Northwest: Investigation of the Role of *ERG11*." *Antimicrob. Agents Chemother.* 57 (2013): 5478-5485. PubMed: 23979758.
6. Basso, L. R., Jr., et al. "Identification and Properties of Plasma Membrane Azole Efflux Pumps from the Pathogenic Fungi *Cryptococcus gattii* and *Cryptococcus neoformans*." *J. Antimicrob. Chemother.* 70 (2015): 1396-1407. PubMed: 25630649.

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