Product Information Sheet for NR-50429

Cryptococcus gattii, Strain MIC8-C3

Catalog No. NR-50429

For research use only. Not for human use.

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Manufacturer:
BEI Resources

Product Description:
Classification: *Tremellaceae*, *Cryptococcus*
Species: *Cryptococcus gattii*
Strain: MIC8-C3
Original Source: *Cryptococcus gattii* (*C. gattii*), strain MIC8-C3 was isolated from human lung biopsy tissue in the Pacific Northwest region of North America.[1]
Comments: *C. gattii*, strain MIC8-C3 was deposited as lineage VGIII 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-50429 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 MIC8-C3, NR-50429."

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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