

***Cryptococcus neoformans*, Isolate 5****Catalog No. NR-41295****For research use only. Not for human use.****Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Classification: *Filobasidiaceae*, *Cryptococcus*

Species: *Cryptococcus neoformans*

Isolate: 5

Original Source: *Cryptococcus neoformans* (*C. neoformans*), isolate 5, was obtained from human cerebrospinal fluid in China in February 2012.<sup>1</sup>

The *Cryptococcus* species complex is currently composed of two species, *C. neoformans* and *C. gattii*. These species are best recognized as the agents of cryptococcosis, an AIDS-defining illness.<sup>2,3</sup> *C. neoformans* is divided into two varieties, *C. neoformans* var. *grubii* (serotype A) and *C. neoformans* var. *neoformans* (serotype D).<sup>2</sup> In the current classification scheme, there are five distinct lineages, referred to as VNI, VNII, VNB, VNIII and VNIV.<sup>2,3</sup> The two varieties (*neoformans* and *grubii*) are able to recombine and produce diploid or aneuploid intervarietal AD hybrids.<sup>2</sup> *C. neoformans* has been widely associated with avian excreta.<sup>2</sup>

**Material Provided:**

Each vial of NR-41295 contains approximately 0.4 mL of yeast culture in 20% glycerol.

**Packaging/Storage:**

NR-41295 was packaged aseptically in cryovials and is provided frozen on dry ice. The product should be stored at -60°C or colder. For long term storage, cryogenic temperature (-130°C or colder), preferably in the vapor phase of a liquid nitrogen freezer, is recommended.

**Growth Conditions:**Media:

Yeast Mold broth or equivalent

Yeast Mold agar or equivalent

Incubation:

Temperature: 25°C to 30°C

Atmosphere: Aerobic

Propagation:

1. Keep vial frozen until ready for use; thaw rapidly in a waterbath at 25°C to 30°C. Typically, this takes less than 5 minutes.

2. Immediately after thawing, inoculate an agar plate with approximately 40 µL of thawed culture or transfer the entire thawed aliquot into a single tube of broth.
3. Incubate the plate or tube at 25°C to 30°C for 2 to 4 days.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Cryptococcus neoformans*, Isolate 5, NR-41295."

**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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. Zhang, Q. Q., Personal Communication.
2. Cogliati, M. "Global Molecular Epidemiology of *Cryptococcus neoformans* and *Cryptococcus gattii*: An Atlas of the Molecular Types." *Scientifica (Cairo)* 2013 (2013): 675213. PubMed: 24278784.
3. Zhu, P., et al. "Congenic Strains for Genetic Analysis of Virulence Traits in *Cryptococcus gattii*." *Infect. Immun.* 81 (2013): 2616-2625. PubMed: 23670558.

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