b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-48776

Cryptococcus neoformans var. *grubii*, Strain YL99α

Catalog No. NR-48776

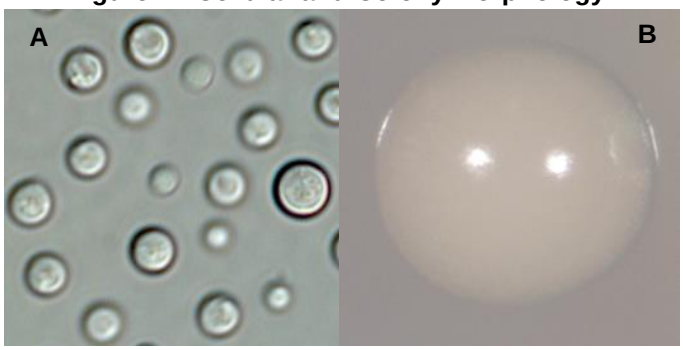
Product Description: *Cryptococcus neoformans (C. neoformans)* var. *grubii,* strain YL99α was derived from strain H99O, after passage in the rabbit model of central nervous system infection.

Lot[1]: 63383710 **Manufacturing Date: 24APR2015**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology[2]	Report results	Circular yeast form cells, usually single (Figure 1A)
Colony morphology[2]	Report results	Circular, convex, butyrous, shiny, smooth; entire margin (Figure 1B)
CGB agar characterization[3]		
NR-48776	Yellow (no color change)	Yellow (no color change)
Positive control (*C. neoformans;* ATCC® 32045™)	Yellow (no color change)	Yellow (no color change)
Negative control (*C. gattii*; ATCC® MYA-4563™)	Blue	Blue
Genotypic Analysis		
Sequencing of partial 18S ribosomal RNA (rRNA) gene, internal transcribed spacer (ITS) 1, 5.8S rRNA gene, ITS 2, partial 26S rRNA (~ 920 base pairs)	≥ 99% sequence identity to *C. neoformans,* strain H99 (GenBank: CP003821)	99.5% sequence identity to *C. neoformans,* strain H99 (GenBank: CP003821)
Sequencing of 26S rRNA gene (~ 610 base pairs)	≥ 99% sequence identity to *C. neoformans,* strain H99 (GenBank: CP003821)	99.7% sequence identity to *C. neoformans,* strain H99 (GenBank: CP003821)
Purity[4]		
Nutrient broth with 0.1% Yeast Extract at 25°C	No bacterial growth	No bacterial growth
Nutrient broth with 0.1% Yeast Extract at 37°C	No bacterial growth	No bacterial growth
Viability (post-freeze)[2]	Growth	Growth

[1]NR-48776 was produced by inoculation of the deposited material onto Yeast Mold slants and grown 3 days at 30°C in an aerobic atmosphere. Cells were harvested from the slants with 20% glycerol to produce this lot.
[2]3 days at 25°C in an aerobic atmosphere on Modified Sabouraud Dextrose medium
[3]2 days at 35°C in an aerobic atmosphere. CGB medium differentiates *C. gattii* from *C. neoformans* based on the ability of *C. gatti* isolates to grow in the presence of L-canavanine and to assimilate glycine as a sole carbon source, resulting in a blue color. *C. neoformans* isolates will remain yellow. [McTaggart, L., et al. "Rapid Identification of *Cryptococcus neoformans* var. *grubii*, *C. neoformans* var. *neoformans*, and *C. gattii* by Use of Rapid Biochemical Tests, Differential Media, and DNA Sequencing." J. Clin. Microbiol. 2011 (49): 2522-2527. PubMed: 21593254.]
[4]Clarity of broth was determined by visual inspection after 6 days in an aerobic atmosphere.

Figure 1: Cellular and Colony Morphology



BEI Resources
www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

Certificate of Analysis for NR-48776

Date: 27 SEP 2016 **Signature:** 

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898