Product Information Sheet for NR-51685

Candida glabrata, Strain DSY562

Catalog No. NR-51685

For research use only. Not for use in humans.

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Manufacturer:
BEI Resources

Product Description:
Classification: Mitosporic *Saccharomycetales, Candida*
Species: *Candida glabrata* (also referred to as *Nakaseomyces glabratus)*[1]
Strain: DSY562
Original Source: *Candida glabrata (C. glabrata),* strain DSY562 was isolated in 1995 from a patient with acquired immunodeficiency syndrome and oropharyngeal candidiasis.[2,3]
Comment: *C. glabrata*, strain DSY562 was deposited as a fluconazole-susceptible strain.[2,3] A fluconazole-resistant isolate from the same patient collected following two courses of treatment with fluconazole is available as BEI Resources NR-51686. The complete genome of *C. glabrata,* strain DSY562 has been sequenced (GenBank: MVOE00000000).[3]

C. glabrata are ubiquitous in the environment and commensal inhabitants of the oral cavity, gastrointestinal tract and skin of most healthy humans.[4,5] For the immunocompromised, however, *C. glabrata* is the second most commonly recovered pathogenic yeast in the United States behind *C. albicans.* Together, the two species are responsible for approximately 70% of all cases of systemic candidiasis with increasing rates of multidrug resistance, particularly to azoles.[2,3,4,5] *C. glabrata* is more closely related phylogenetically to *Saccharomyces cerevisae* than *C. albicans*, and is a member of the *Nakaseomyces* clade. Unlike other *Candida*, *C. glabrata* has a haploid genome, and therefore only reproduces asexually, forming blastoconidia. In addition, *C. glabrata* has differentiating features such as absence of pseudohyphae, facultative anaerobic growth and rapidly decreasing susceptibility to azole antifungals.[5,6,7]

Reclassification of *C. glabrata* and other *Candida* species to the *Nakaseomyces* clade has been proposed.[1]

Material Provided:
Each vial contains approximately 0.5 mL of yeast culture in 20% glycerol.

Packaging/Storage:
NR-51685 was packaged aseptically in cryovials and is provided frozen on dry ice. The product should be stored at -70°C or colder. For long term storage the product should be stored -130°C or colder, preferably in the vapor phase of a liquid nitrogen freezer.

Growth Conditions:
Media:
Yeast Mold broth or equivalent
Yeast Mold agar or equivalent
Incubation:
Temperature: 37°C
Atmosphere: Aerobic
Propagation:
1. Keep vial frozen until ready for use; thaw rapidly in a water bath at 25°C to 30°C. Typically, this takes less than 5 minutes.
2. Transfer the entire contents of the vial into Yeast Mold broth.
3. Incubate at 37°C for 2 to 6 days.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Candida glabrata*, Strain DSY562, NR-51685."

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 (BMBL). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

Disclaimers:
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References:

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3. Vale-Silva, L., et al. "Comparative Genomics of Two Sequential *Candida glabrata* Clinical Isolates." G3 (Bethesda) 7 (2017): 2413-2426. PubMed: 28663342.
4. Brunke, S. and B. Hube. "Two Unlike Cousins: *Candida albicans* and *C. glabrata* Infection Strategies." Cell. Microbiol. 15 (2013): 701-708. PubMed: 23253282.
5. Hendrickson, J. A., et al. "Antifungal Resistance: A Concerning Trend for the Present and Future." Curr. Infect. Dis. Rep. 21 (2019): 47. PubMed: 31734730.
6. Bolotin-Fukuhara, M. and C. Fairhead. "*Candida glabrata*: A Deadly Companion?" Yeast 8 (2014): 279-288. PubMed: 24861573.
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