Product Information Sheet for NR-29341

Candida albicans, Strain 23Q

Catalog No. NR-29341

For research use only. Not for use in humans.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
Classification: Mitosporic *Saccharomycetales; Candida*
Species: *Candida albicans*
Strain/Isolate: 23Q
Original Source: *Candida albicans (C. albicans)*, strain 23Q was isolated from a human in China.[1]

C. albicans is a eukaryotic, pathogenic obligate aerobe that is responsible for the majority of forms of candidiasis and is responsible for superficial as well as life-threatening systemic infections. It is commonly isolated from the environment and can be a component of the microbial floras of the human oral cavity, gastrointestinal tract or vagina. Several features of *C. albicans* contribute to its virulence. These include the secretion of hydrolytic enzymes, the ability to adhere to host cells and tissues, phenotypic switching (a phenomenon that involves changing several growth and morphological characteristics at the same time) and morphological dimorphism (growth can be yeast-like or mycelial). *C. albicans* is generally diploid and exhibits considerable natural heterozygosity.[2,3,4,5,6]

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

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:
NR-29341 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

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 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 to 30°C for 2 to 4 days.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Candida albicans*, Strain 23Q, NR-29341."

Biosafety Level: 1
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:

1. Lewis, K., Personal Communication.
2. Kim, J. and P. Sudbery. "*Candida albicans*, A Major Human Fungal Pathogen." J. Microbiol. 49 (2011): 171-177. PubMed: 21538235.
3. Karkowska-Kuleta, J., M. Rapala-Kozik and A. Kozik. "Fungi Pathogenic to Humans: Molecular Bases of Virulence of *Candida albicans*, *Cryptococcus neoformans* and *Aspergillus fumigatus*." Acta Biochim. Pol. 56 (2009): 211-224. PubMed: 19543556.
4. Niimi, M., R. D. Cannon and B. C. Monk. "*Candida albicans* Pathogenicity: A Proteomic Perspective." Electrophoresis 20 (1999): 2299-2308. PubMed: 10493133.
5. Jones, T., et al. "The Diploid Genome Sequence of *Candida albicans*." Proc. Natl. Acad. Sci. USA 101 (2004): 7329-7334. PubMed: 15123810.
6. d'Enfert, C., et al. "CandidaDB: A Genome Database for *Candida albicans* Pathogenomics." Nucleic Acids Res. 33 (2005): D353-D357. PubMed: 15608215.

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