Product Information Sheet for NR-29360

Candida albicans, Strain 22O

Catalog No. NR-29360

For research use only. Not for human use.

Contributor:
Kim Lewis, Professor, Northeastern University, Boston, Massachusetts, USA

Manufacturer:
BEI Resources

Product Description:
Classification: Mitosporic *Saccharomycetales; Candida*
Species: *Candida albicans*
Strain/Isolate: 22O
Original Source: *Candida albicans* (*C. albicans*), strain 22O is a human isolate collected 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 diploid and exhibits considerable natural heterozygosity.[2-4] The whole genome sequence for the diploid form of *C. albicans*, strain SC5314 has been completed (GenBank: AACQ00000000; CandidaDB).[5,6]

Material Provided:
Each vial of NR-29360 contains approximately 0.4 mL of yeast culture in 20% glycerol.

Packaging/Storage:
NR-29360 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 the product should be stored at cryogenic temperature (-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: 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 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 22O, NR-29360."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
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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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