Product Information Sheet for NR-43220

Cryptococcus gattii, Strain AIR265a

Catalog No. NR-43220

For research use only. Not for use in humans.

Contributor:
Alexander Idnurm, Associate Professor, School of Biological Sciences, The University of Missouri-Kansas City, Kansas City, Missouri, USA

Manufacturer:
BEI Resources or Alexander Idnurm, Associate Professor, School of Biological Sciences, The University of Missouri-Kansas City, Kansas City, Missouri, USA

Product Description:
Classification: *Filobasidiaceae, Cryptococcus*
Species: *Cryptococcus gattii*
Strain: AIR265a
Original Source: *Cryptococcus gattii (C. gattii)*, strain AIR265a is the progeny of a genotypic cross between *C. gattii* strains R265 and Alg166.[1,2]
Comments: *C. gattii,* strain AIR265a is one strain of a congenic pair.[1,2] It was deposited as mating type a. The parental strains, intermediate progeny, second strain of the congenic pair and various mutants are available through BEI Resources (NR-43208 through NR-43225, Table 1).

The *Cryptococcus* species complex is comprised of four distinct lineages, VGI to VGIV, which are currently classified as two species, *C. neoformans* and *C. gattii.* These species are best recognized as the agents of cryptococcosis, an AIDS-defining illness.[2,3]

C. gattii are characterized serologically as serotypes B and C, and clinical isolates are relatively rare.[3] Although cryptococcosis was historically considered to be a tropical and subtropical illness, in the late 1990's, cryptococcal disease in healthy people, domestic pets and wildlife caused by *C. gattii* appeared on Vancouver Island, British Columbia and it subsequently spread to the mainland and into the northwest United States.[2,3,4] The origin of this outbreak is unknown, though *C. gattii*, strain R265 is known to be the causative agent.[4]

Table 1: *C. gattii* Strains

Parental Strains	BEI Resources	Progeny	BEI Resources
R265	NR-43208	Alg40	NR-43210
CBS1930	NR-43209		
R265	NR-43208	Alg75	NR-43211
Alg40	NR-43210		
R265	NR-43208	Alg81	NR-43212
Alg75	NR-43211		
R265	NR-43208	Alg99	NR-43213
Alg81	NR-43212		
R265	NR-43208	Alg114	NR-43214
Alg99	NR-43213		
R265	NR-43208	Alg115	NR-43215
Alg114	NR-43214		
R265	NR-43208	Alg127	NR-43216
Alg115	NR-43215		
R265	NR-43208	Alg144	NR-43217
Alg127	NR-43216		
R265	NR-43208	Alg159	NR-43218
Alg144	NR-43217		
R265	NR-43208	Alg166	NR-43219
Alg159	NR-43218		
R265	NR-43208	**AIR265a**	**NR-43220**
Alg166	NR-43219		
R265	NR-43208	AIR265α	NR-43221
Alg166	NR-43219		
R265	Mutant	Alg254	NR-43222
Alg254	Mutant	Alg268	NR-43223
R265	Mutant	AlgFUR1-1	NR-43224
AIR265a	NR-43220	Alg520	NR-43225
AlgFUR1-1	NR-43224		

Material Provided:
Each vial contains approximately 0.5 mL of yeast culture in 10% glycerol. Each vial of lot 61631753 contains approximately 1 mL of yeast culture in Yeast Extract Peptone Dextrose broth containing 15% glycerol.

Packaging/Storage:
NR-43220 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -80°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:
Emmons Modified Sabouraud Dextrose broth or Yeast Mold broth or equivalent
Emmons Modified Sabouraud Dextrose agar or Yeast Mold agar or Malt Extract agar (Blakeslee's formula) or equivalent
Incubation:
Temperature: 30°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. 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 30°C for 2 to 4 days.

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

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Cryptococcus gattii,* Strain AIR265a, NR-43220."

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). Current Edition. Washington, DC: U.S. Government Printing Office.

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References:

1. Idnurm, A., Personal Communication.
2. Zhu, P., et al. "Congenic Strains for Genetic Analysis of Virulence Traits in *Cryptococcus gattii*." Infect. Immun. 81 (2013): 2616-2625. PubMed: 23670558.
3. Diaz, M. R. and J. W. Fell. "Use of a Suspension Array for Rapid Identification of the Varieties and Genotypes of *Cryptococcus neoformans* Species Complex." J. Clin. Microbiol. 43 (2005): 3662-3672. PubMed: 16081894.
4. Kidd, S. E., et al. "A Rare Genotype of *Cryptococcus gattii* caused the Cryptococcosis Outbreak on Vancouver Island (British Columbia, Canada)." Proc. Natl. Acad. Sci. USA 101 (2004): 17258-17263. PubMed: 15572442.

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