Product Information Sheet for NR-43208

Cryptococcus gattii, Strain R265

Catalog No. NR-43208

For research use only. Not for human use.

Contributor and Manufacturer:

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: R265
Original Source: *Cryptococcus gattii (C. gattii),* strain R265 was isolated from a human on Vancouver Island, Canada during the outbreak that began in the late 1990's.[1-4]
Comment: *C. gattii,* strain R265, was obtained from the laboratory of J. Heitman at Duke University Medical Center as part of the Broad Fungal Genome Initiative (Broad Institute) and characterized as virulent in mice and the greater wax moth, *Galleria mellonella*.[1] Strain R265 is a wild type, *MAT* α, strain and is one of two strains utilized to produce a congenic pair.[1,2] Intermediate progeny, the final congenic pair, and various mutant strains are available from BEI Resources [Table 1 (below) NR-43210 to NR-43225]. The complete genome sequence of *C. gattii,* strain R265 is available (GenBank: AAFP00000000).

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.[2-4] The origin of this outbreak is unknown, though *C. gattii* strain R265 is known to be the causative agent.[4]

Table 1: *C. gatti* Strains

Parental Strains	BEI Resources	Progeny	BEI Resources
R265	**NR-43208**	AIg40	NR-43210
CBS1930	NR-43209		
R265	NR-43208	AIg75	NR-43211
AIg40	NR-43210		
R265	NR-43208	AIg81	NR-43212
AIg75	NR-43211		
R265	NR-43208	AIg99	NR-43213
AIg81	NR-43212		
R265	NR-43208	AIg114	NR-43214
AIg99	NR-43213		
R265	NR-43208	AIg115	NR-43215
AIg114	NR-43214		
R265	NR-43208	AIg127	NR-43216
AIg115	NR-43215		
R265	NR-43208	AIg144	NR-43217
AIg127	NR-43216		
R265	NR-43208	AIg159	NR-43218
AIg144	NR-43217		
R265	NR-43208	AIg166	NR-43219
AIg159	NR-43218		
R265	NR-43208	AIR265a	NR-43220
AIg166	NR-43219		
R265	NR-43208	AIR265α	NR-43221
AIg166	NR-43219		
R265	Mutant	AIg254	NR-43222
AIg254	Mutant	AIg268	NR-43223
R265	Mutant	AIgFUR1-1	NR-43224
AIR265a	NR-43220	AIg520	NR-43225
AIgFUR1-1	NR-43224		

Material Provided:

Each vial of NR-43208 contains approximately 1 mL of yeast culture in Yeast Extract Peptone Dextrose broth containing 15% glycerol.

Packaging/Storage:

NR-43208 was packaged aseptically in cryovials and is provided frozen on dry ice. The product should be stored at -80°C or colder.

Growth Conditions:

Media:
Yeast Extract Peptone Dextrose broth or equivalent
Yeast Extract Peptone Dextrose agar, Yeast Mold agar or equivalent
Incubation:
Temperature: 30°C
Atmosphere: Aerobic
Propagation:
1. Keep vial frozen until ready for use; thaw rapidly.
2. 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.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Cryptococcus gattii*, Strain R265, NR-43208."

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

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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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