

Cryptococcus gattii, Strain Alg114

Catalog No. NR-43214

For research use only. Not for human use.

Contributor and Manufacturer:

Alexander Idnum, 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: Alg114

Original Source: *Cryptococcus gattii* (*C. gattii*), strain Alg114 is the progeny of a genotypic cross between *C. gattii* strains R265 and Alg99.^{1,2}

Comment: *C. gattii*, strain Alg114 is progeny produced towards the generation of a congenic pair.^{1,2} It was deposited as expressing a wild type genotype, mating type a. The parental strains, intermediate progeny, final congenic pair and various mutants are available through BEI Resources [NR-43208 through NR-43225, Table 1 (below)].

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. 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		

Parental Strains	BEI Resources	Progeny	BEI Resources
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 of NR-43214 contains approximately 1 mL of yeast culture in Yeast Extract Peptone Dextrose broth containing 15% glycerol.

Packaging/Storage:

NR-43214 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 Alg114, NR-43214."

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.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

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.

ATCC® is a trademark of the American Type Culture Collection.

