Fungal Genetics Reports

Volume 26 Article 16

An improved glycerol minimal medium

G. W. Charlang
California Institute of Technology

Recommended Citation
Charlang, G. W. (1979) "An improved glycerol minimal medium," *Fungal Genetics Reports*: Vol. 26, Article 16. https://doi.org/10.4148/1941-4765.1704

An improved glycerol minimal medium

Abstract
An improved glycerol minimal medium

Charlang, G. W.

An improved glycerol minimal medium.

Anyone who has grown Neurospora in a liquid glycerol medium knows the frustrations of low yield and difficulties of harvesting such cultures. We hove found a way to significantly improve yield by using on organic nitrogen source and/or ascorbic acid.

The medium consists of Vogel's salts (without NH_4NO_3), plus glycerol (2%) and L-asparagine (0.5%). Tween 80 (3 drops or 42mg per flask) is added before autoclaving. We inoculate wild type 74A at a concentration of 10^4 conidia per ml in 50ml of this medium (125 ml flasks). The flask cultures are incubated at 30° C with shaking for 48 hours; some typical results (dry weight in mg per flask) are given in the table.

Growth (mg dry weight) of 74A in different minimal media

Medium		Ascorbic acid 100 µg/ml
2% sucrose with NH_4NO_3	327	
2% glycerol with NH_4NO_3	30	73
2% glycerol with L-asparagine	108	143

Ascorbic acid improves yield with or without asparagine. The ascorbic acid solution is freshly prepared in sterile distilled water and filter sterilized before odding it to the autoclaved medium. (Supported by Grant NGR 05-002-121 from the National Aeronautics and Space Administration.) - - - Division of Biology, California Institute of Technology, Pasadena, CA 91125.