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Rapid DNA extraction from

Neurospora crassa

A rapid method for DNA extraction is described. It is equally efficient with small or large quantities of mycelium, produces readily restricted DNA, and is comparable with that produced by the method of Case et al. (1979, PNAS 76:5259) in concentration of DNA obtained and average fragment size.

Mycelium from an overnight culture was harvested through a Whatman no. 1 filter, washed and freeze-dried. The mycelium (~50-100 mg) was placed in a 50 ml Sorvall tube, and an equal volume of 6M urea containing 2% SDS was added. The mixture was left on ice for 10-15 minutes, after which it was centrifuged at 10,000 rpm. The supernatant was transferred and extracted with phenol 2-3x. The DNA was precipitated from the aqueous phase by the addition of 2 vol of cold ethanol, collected by centrifugation, and dissolved in 100-300 ul of TE buffer, pH 8. RNA may be removed at this stage with RNase.

This method appears to be generally applicable to unicells, mycelium and other filamentous organisms. It has been successfully used also on the moss Physcomitrella patens.

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