



Product Information

PHENOL:CHLOROFORM 5:1 Molecular Biology Reagent

Product No. **P 1944**
Store at 2 to 8 °C

Product Description

Methods^{1,2,3} using Phenol:Chloroform 5:1 for the purification of total RNA from mixtures of crude cell extracts are simple and eliminate the need for a time consuming ultracentrifugation step. In some cases one extraction of the crude cell extract is all that is required; in other cases one or two reextractions may be necessary to remove the last traces of DNA.²

125:24:1 mixture of phenol, chloroform and isoamyl alcohol.

Suitable for use in the purification of RNA.

Results

Suitability Assay

100 µl Phenol:Chloroform 5:1 was added to 100 µl of a solution containing 2 µg tRNA (Product No. R 4251) and 1 µg pBR322 DNA Hae III digest (Product No. D 9655).

The DNA-RNA/Phenol-Chloroform mixture was vortexed 1 minute at maximum speed and then

centrifuged 5 minutes at 0-5 °C at 14,000 x g. Part (about 90%) of the upper aqueous phase was carefully removed so as not to disturb the interface between organic and aqueous phase. The aqueous phase was extracted two more times as above. Based on polyacrylamide gel electrophoresis, all traces of DNA fragments were removed from the tRNA and recovery of tRNA was approximately 80%.

References

1. Chomczynski, P., et al., *Anal. Biochem.*, **162**, p. 156-159 (1987).
2. Puissant, C. and Houdebine, L.M., *BioTechniques*, **8**, p. 148-149 (1990).
3. Kedzierski, W. and Porter, J.C., *BioTechniques*, **10**, p. 210-214 (1991).

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