Removal of Genomic DNA from RNA Preparations

Protocol

This protocol is for the Removal of Genomic DNA from RNA Preparations

1. Add to an RNase-free tube:

RNA	1 µg
10X reaction buffer with $MgCl_2$	1 µl
DNase I, RNase-free	1 µl (1 u)
DEPC-treated Water	to 10 µl
Total volume	**10 µl**

2. Incubate 30 min at 37°C.
3. Add 1 µl of 50 mM EDTA and incubate 10 min at 65°C. RNA hydrolyzes if heated in the absence of a chelating agent (1).
4. Use the prepared RNA as a template for reverse transcriptase.

Note

- Do not use more than 1 u of DNase I, RNase-free per µg of RNA.
- Reaction mixture can be scaled up for larger amounts of RNA. The recommended final concentration of RNA is 0.1-0.2 µg/µl.
- RiboLock™ RNase Inhibitor (#EO0381), typically at 1 u/µl, can also be included in the reaction mixture to inactivate type A RNases potentially present in the initial RNA solution

Reference

1. Wiame, I., et al., Irreversible heat inactivation of DNase I without RNA degradation, *BioTechniques*, 29, 252-256, 2000.

thermoscientific.com

North America
Technical Services:
techservice.genomics@thermofisher.com
Customer Services:
customerservice.genomics@thermofisher.com
Tel 800 235 9880
Fax 800 292 6088

Europe and Asia
Technical Services:
techservice.emea.genomics@thermofisher.com
Customer Services:
customerservice.emea.genomics@thermofisher.com

Thermo SCIENTIFIC

Part of Thermo Fisher Scientific