

Controlling RNases

RNA^{later}®, RNaseZap®, and other products for an RNase-free lab environment



RNA is easily degraded by RNases. By minimizing nuclease contamination and using the most stringent quality specifications, Ambion® products are designed to help you keep those ubiquitous RNases under control.

RNA stabilization

RNA^{later}® products are available to stabilize and preserve the integrity of RNA in cell or tissue samples. RNA^{later}® Stabilization Solution is an aqueous, nontoxic reagent that inactivates RNases. This minimizes the need to immediately freeze and store samples at -80°C , or laborious grinding of frozen tissue (Figure 1).

Surface decontamination

RNaseZap® solution is a combination of three different chemicals that inactivates RNases immediately upon contact. No baking or autoclaving is required. Simply spray or wipe your pipettes, glassware, plasticware, and work surfaces with RNaseZap® solution and rinse with RNase-free water.

RNase-free tips, tubes, and solutions

Ambion® Barrier Tips help prevent cross-contamination by means of an aerosol filter. All tips and tubes are tested and certified to be nuclease-free. A wide selection of nuclease inhibitors, solutions for running gels, and individual buffers are also available.

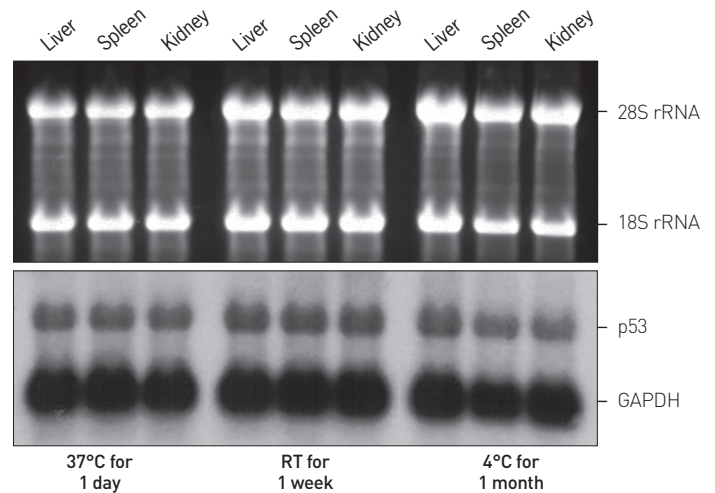


Figure 1. Tissue treated with RNA^{later}® solution and stored at different temperatures. Tissue samples were submerged in about 5 volumes of RNA^{later}® solution at room temperature (RT) and stored at 37°C for 1 day, room temperature (25°C) for 1 week, or 4°C for 1 month. Total RNA was purified and run on a gel (top panel), and then a northern blot was performed and hybridized with probes to p53 and GAPDH (bottom panel), demonstrating the integrity of the RNA. Note that the tissues include spleen, an organ known for its high content of endogenous RNases.

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Ordering information

Product	Quantity	Cat. No.
RNAlater® Stabilization Solution	100 mL	AM7020
RNAlater®-ICE Frozen Tissue Transition Solution	10 x 25 mL	4427575
RNaseZap® RNase Decontamination Solution	250 mL	AM9780
RNaseZap® RNase Decontamination Wipes	100 sheets	AM9786
ElectroZap™ Electrode Decontamination Solution	250 mL	AM9785
Barrier (Filter) Tips, 10 µL size (8 x 12 tips)	10 racks	AM12635
Barrier (Filter) Tips, 100 µL size (8 x 12 tips)	10 racks	AM12648
RNase-Free Tips, 1,000 µL size (100 tips)	10 racks	AM12660
Thin-Walled, Frosted Lid, RNase-Free PCR Tubes (0.5 mL)	1,000 tubes	AM12275
RNase-Free Microfuge Tubes (0.5 mL)	1,000 tubes	AM12300
Conical Tubes (15 mL, racked)	500 tubes	AM12500
Conical Tubes (50 mL, racked)	200 tubes	AM12501
Nuclease-Free Water (not DEPC-treated)	500 mL	AM9930
DEPC-Treated Water	100 mL	AM9915G

For more information, go to lifetechnologies.com/rnaessentials



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