TRIsure™

Unrivalled RNA Purity

- **Efficient:** Ready-to-use solution for isolation of premium quality Total RNA
- **High-yield:** Column-free Total RNA isolation, optimized for maximum RNA yield
- **Versatile:** Suitable for a wide variety of cells and tissues including bacteria and plants

TRIsure™ is a ready-to-use reagent for the isolation of high quality total RNA from diverse biological materials, including animal tissues, cultured cells, bacterial cells, as well as plant tissues rich in polysaccharides and proteoglycans.

TRIsure maintains the integrity of the extracted RNA (high RIN and 28S/18S ratio) (Fig. 1), while disrupting cells and dissolving cell components. The reagent combines a proprietary blend of phenol and other components for optimal results.

The biological sample is homogenized or lysed in TRIsure and then separated into organic and aqueous phases. The RNA remains in the aqueous phase and is subsequently recovered by precipitation with isopropyl alcohol. High yield (Table 1) and high quality RNA, with virtually no genomic DNA contamination, is extracted (Fig. 2). A volume of 1 mL of TRIsure is sufficient to isolate total RNA from 1 x 10^7 cells or 100 mg of tissue. The isolation method is rapid and straightforward (Fig. 3).

Using intact RNA as provided by TRIsure, is a key element in obtaining reliable gene expression data in downstream applications, such as cDNA synthesis, real-time RT-PCR, microarray, hybridization assays and in vitro translation (see product citations).

Table 1. Expected yield of RNA from various samples using TRIsure.

Sample type	Sample quantity	Expected yield
Cultured epithelial cells	1 x 10^6	8-15 µg
Cultured fibroblasts	1 x 10^6	20-25 µg
Mouse kidney tissue	1 mg	2-5 µg
Mouse liver tissue	1 mg	5-10 µg

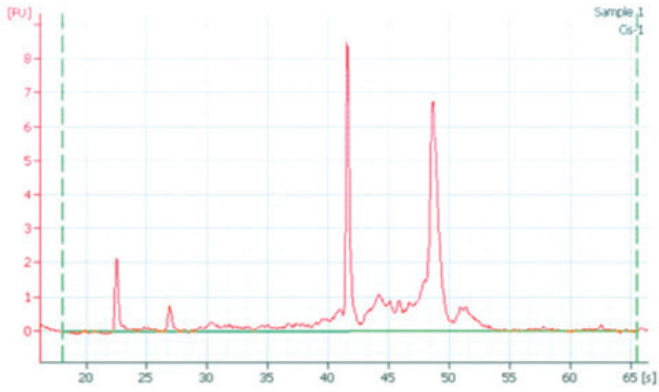


Fig. 1 Isolation of high quality RNA.
A log phase culture of *Bacillus subtilis* was pre-treated with Bacterial Enhancement Reagent, followed by isolation of RNA using TRIsure. The RNA was analyzed using Bioanalyzer 2100 (Agilent Technologies) and was found to be of high quality and purity.

meridian BIOSCIENCE®
LIFE DISCOVERED. LIFE DIAGNOSED.

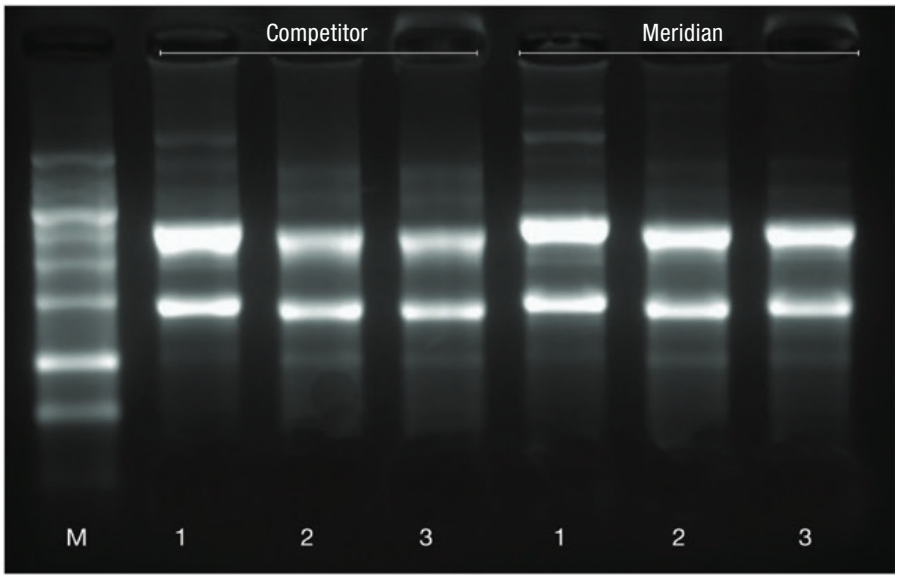
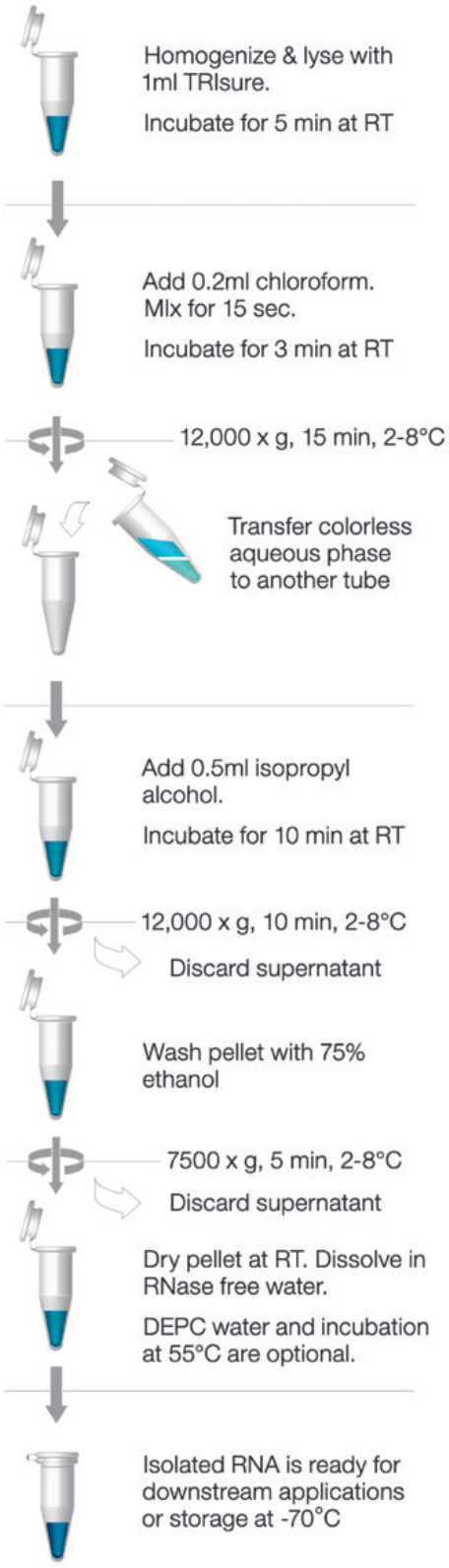


Fig. 2 High quality and yield of RNA extracted using TRIsure.
RNA extracted from 3T6 cells and mouse tissue, using TRIsure and Competitor reagent.
Lane 1: 4 µg of total RNA from 3T6 cells
Lane 2: 4 µg of total RNA from mouse kidney tissue
Lane 3: 4 µg of total RNA from mouse liver tissue
M: RNA Ladder

Fig. 3 TRIsure Protocol.



Product Citations

1. Chincinska, I.A., *et al. Plant Physiol.***146**,515-528 (2008).
2. Hedtke, B., *et al. NAR* **37(11)**, 3739-3746 (2009).
3. Tsuda, M., *et al.J. Cell. Mol. Med.***13**, 412-603 (2009).
4. Schroeckh. V., *et al. PNAS* **106**, 14558-14563 (20 09).
5. Yamazaki, S., e*t al. Biochim. Biophys. Acta* **1779**, 2108-2114 (2009).
6. Gollan, P. J., *et al. Physiologia Plantarum* **143(4)**, 385-395 (2011).
7. Wanger, A. E., *et al. BMC Comp. Alt. Medicine* 11, 1 (2011).
8. Yoshida, A., *et al. Plant J.***70(2)**, 327-339 (2012).

Ordering Information

Product	Size	Cat. #
TRIsure	100 ml	BIO-38032
	200 ml	BIO-38033

Contact information:

Global
E: info@meridianlifescience.com
Toll free: +1 800 327 6299

Australia
E: info.au@meridianlifescience.com
Tel: +61 (0)2 9209 4180

Connect with us:

bioline.com/rna