

Total RNA isolation reagent, Thermo Scientific ABgene



LD

For the extraction of total RNA from tissue, cells, bacteria, plants, yeast and biological fluids.

The Total RNA Isolation Reagent (TRIR) is designed for the extraction of total RNA from most sample types. A biological sample is homogenised with the reagent using a glass-Teflon® homogeniser. After extraction with chloroform, the homogenate separates into two phases. RNA remains in the aqueous phase while DNA and proteins are extracted into the organic phase. The RNA is precipitated from the aqueous phase by addition of isopropanol, washed with ethanol and dissolved in RNase-free water. The simplicity of the isolation using this procedure makes it possible to process a large number of samples simultaneously. The excellent recovery rate makes it ideal for the extraction of RNA from very small biological samples (biopsies, etc.). Results are consistent and reproducible with no degradation of RNA. Isolated RNA is free of DNA and protein contamination, with results achieved in under one hour.

Storage: The TRIR is stable for one year when stored in the dark at 2°C to 8°C. It is shipped at ambient temperature. Typical yield: up to 200µg from 106 mammalian cells, up to 500µg from 100mg tissue.

Catalogue No	Alt. No	Quantity, mL	Pack qty
MBR-875-010B	AB-0303	50	1
MBR-875-020V	AB-0304	100	1
MBR-875-030S	AB-0305	200	1

Total RNA purification, TRIzol® reagents and kits



50

Trizol Max bacterial RNA isolation kits:

- Works with Gram-positive and Gram-negative bacteria
- Includes Max Bacterial Enhancement Reagent to eliminate mechanical and enzymatic lysis procedures
- Uses 0.2mL of Max Bacterial Enhancement Reagent and 1.0mL of TRIzol® Reagent to isolate total RNA from 10⁸ bacterial cells

Key features of TRIzol® LS Reagent:

- Designed for use with liquid samples such as serum and virus preparations
- Uses a TRIzol® LS Reagent:liquid sample ratio of 3:1
- Facilitates isolation of a variety of RNA species of large or small molecular size

The TRIzol® Plus RNA Purification System provides a simple, reliable, and rapid method to isolate high-quality total RNA from a variety of samples, including animal cells and tissue, plant tissue, bacteria, and yeast. This system combines the strong lysis capability of TRIzol® Reagent with the convenient and time-saving silica spin-column format of the PureLink™ RNA Mini Kit. This kit will extract RNA from the most difficult samples, such as fibrous, fatty, or plant tissues, within an hour and at high yield. The purified total RNA is suitable for use in sensitive gene expression studies such as microarray analysis or qRT-PCR*.

This technique performs well with small quantities of tissue (50 to 100mg) and cells (5 × 10⁶), as well as large quantities of tissue (≥1g) and cells (>10⁷), of human, animal, plant, or bacterial origin. The entire procedure can be completed in one hour. Total RNA isolated by TRIzol® Reagent is free of protein and DNA contamination. It can be used for Northern blot analysis, dot blot hybridisation, poly (A)+ selection, *in vitro* translation, RNase protection assay, RT-PCR, and molecular cloning. For RT-PCR, treatment of the isolated RNA with DNase I is recommended when the two primers lie within a single exon.

The TRIzol® Max™ Bacterial RNA isolation kits

Designed for the isolation of intact total RNA from Gram-positive or Gram-negative bacteria. The Max™ Bacterial Enhancement Reagent is a ready-to-use solution composed of chelating agents, detergent, and a buffer, and is used as an efficient pre-treatment buffer for bacterial cells prior to RNA isolation with TRIzol® Reagent. The use of Max™ Bacterial Enhancement Reagent with TRIzol® inactivates endogenous RNases and promotes protein denaturation, improving the RNA quality and integrity.

TRIzol® reagents

Ready-to-use, monophasic solution of phenol and guanidine isothiocyanate suitable for isolating total RNA from cells and tissues. During sample homogenisation or lysis, TRIzol® reagent maintains the integrity of the RNA, while disrupting cells and dissolving cell components.

Kits

Catalogue No	Description	Quantity
VX12183555	TRIzol® Plus RNA purification system	50 preps
VX16096020	TRIzol® Max™ bacterial RNA isolation kit	1 kit
VX16096040	TRIzol® Max™ bacterial RNA isolation kit	2 kits

Reagents

Catalogue No	Description	Quantity
VX15596026	TRIzol® reagent	100mL
VX15596018	TRIzol® reagent	200mL
VX10296010	TRIzol® LS reagent	100mL
VX10296028	TRIzol® LS reagent	200mL

Accessories

Catalogue No	Description	Quantity
VX12185010	PureLink DNase set	50 preps