SuperArray
Bioscience Corporation

Product Specification Sheet

ArrayGrade™ Total RNA Isolation Kit

Catalog Number	Contents
GA-013	Enough reagents for 12 total RNA preparations

Description

The ArrayGrade™ Total RNA Isolation Kit is designed to extract total RNA from small quantities of biological source material. This kit is designed to prepare of up to 100 µg of total RNA from either cultured animal cells or, in combination with a phenol/chloroform extraction method, from animal tissues. The special silica membrane Spin Column technology used in the kit makes the procedure fast and easy to perform with less than 15 minutes hands-on-time at room temperature. The lysis buffer, with its chaotropic components, stabilizes and prevents degradation of the RNA and allows optimal retention of the RNA on the spin column. The Washing Buffer removes salts, metabolites, and macromolecular cellular components. Low ionic strength conditions elute pure RNA from the column for gene expression analysis applications including labeled target synthesis for microarrays and cDNA template synthesis for RT-PCR.

Materials Included

Please check the kit components immediately after you receive this package. SuperArray is not responsible for any missing items not reported within two (2) business days upon receipt.

Tube	Contents
G6	Lysis and Binding Buffer
G15	Desalting Buffer
G16	Pre-Wash Buffer
G17	Washing Buffer (Add 10 ml ethanol before use.)
H_2O	RNase-free H_2O
	Spin Columns (12)
	Filter Columns (12)
	Collection Tubes (12)

We suggest that the kit contents be kept in their original container to insure that no components are misplaced.

Storage Conditions

The ArrayGrade™ Total RNA Isolation Kit is shipped at ambient temperature. All components may be stored at room temperature.

Shelf Life: All reagents are stable for 6 months after receipt of the kit if stored at the recommended temperature.

Related Products

ArrayGrade™ Total RNA Isolation Kit (GA-013)

RT^2 Profiler™ PCR Arrays (requires addition of DNase) and Oligo GEArray® Microarrays
(See www.superarray.com/ArrayList.php for complete listings)

RT^2 Real-Time™ PCR Master Mixes and/or Oligo GEArray® Reagent Kit (GA-034)

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Brief Protocol

First time users, please refer to the complete protocol in the User Manual.

1. Add 350 µl of Lysis and Binding Buffer (**G6**) to cell pellet or to ground tissue in a 1.5-ml RNase-free tube. Add to filter column and centrifuge for 1 min at 11,000 *x g*.
2. Discard the filter column. Add 350 µl of ethanol (70%) to filtrate and mix.
3. Load entire volume (700 µl) onto spin column. Centrifuge for 30 s at 8,000 *x g*.
4. Add 350 µl of Desalting Buffer (**G15**) onto spin column; centrifuge again for 60 s at 11,000 *x g*.
5. Add 200 µl of Pre-Wash Buffer (**G16**) onto spin column; centrifuge again for 30 s at 8,000 *x g*.
6. Add 350 µl of Washing Buffer (**G17 + ethanol**) onto spin column; centrifuge again for 30 s at 8,000 *x g*.
7. Add 200 µl of Washing Buffer (**G17 + ethanol**) onto spin column; centrifuge again for 3 min at 11,000 x *g*.
8. Add 50 µl of RNase-free H_2O to the spin column.
   Incubate at room temperature for 1 min. Centrifuge for ~ 1 min at 11,000 *x g*.
   Make sure that all of the wash passes through the filter. Repeat spin if necessary.
9. Store RNA at -20 ºC for two to four days or at -80 ºC for up to six months.

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