

# Biospin Plant Total RNA Extraction Kit

## Product Introduction

The kit is a ready-to-use reagent for the isolation of total RNA from plant tissue with polysaccharide and polyphenol. Add lysis to the processed sample and transfer the mixture to spin column, and then total RNA can be easily isolated through several washing and eluting steps. The kit provides a very simple, fast and economical technique to isolate high quality RNA, and can go high-throughput. The pure RNA can be applied extensively in northern blot, blotting hybridization, poly(A)+selection, in vitro translation, RNase protect assay, Real-Time PCR analysis, construction cDNA library etc.

## Features

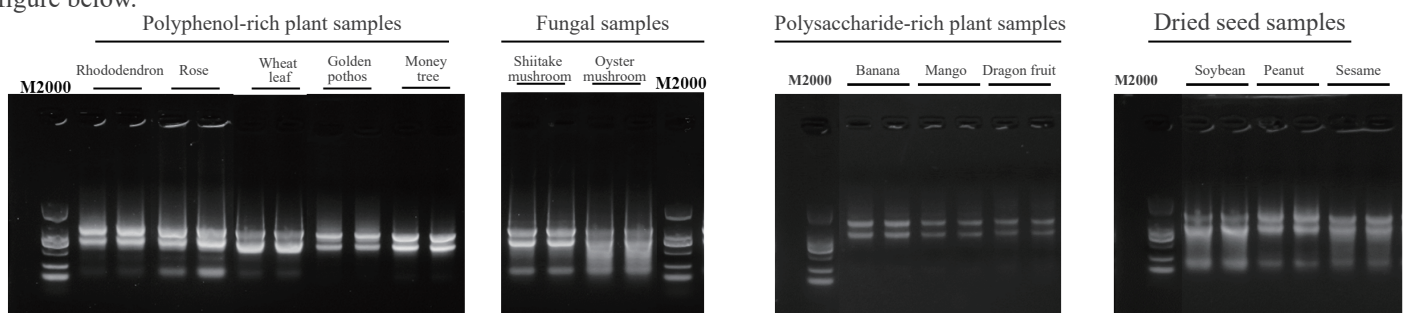


- **Fast and efficient:** Sample purification completed in 9 minutes and 30 seconds.
- **High safety:** Safe and free from toxic reagents (no  $\beta$ -mercaptoethanol, phenol, chloroform, etc.).
- **Versatility:** A single lysis solution applicable to RNA extraction from various plants (polysaccharide and polyphenol-rich plants, dried seeds, fungi, etc.).

## Application cases

### Case 1

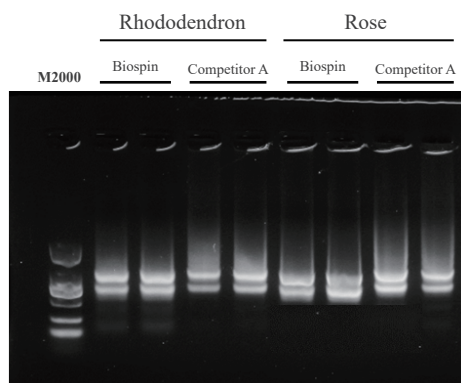
Extracted samples from various plant species were subjected to Nanodrop and electrophoresis analysis, with the results shown in the figure below.



| Sample Classification             | Sample Name       | Concentration (ng/uL) | A260/A280 | A260/A230 |
|-----------------------------------|-------------------|-----------------------|-----------|-----------|
| Polyphenol-Rich Plant Samples     | Rhododendron      | 374.74                | 1.90      | 1.97      |
|                                   |                   | 375.36                | 1.89      | 1.95      |
|                                   | Rose              | 945.30                | 1.97      | 1.99      |
|                                   |                   | 947.20                | 1.97      | 1.95      |
|                                   | Wheat leaf        | 330.54                | 2.16      | 2.15      |
|                                   |                   | 358.55                | 2.16      | 2.21      |
|                                   | Golden pothos     | 85.45                 | 2.09      | 2.15      |
|                                   |                   | 85.19                 | 2.09      | 2.21      |
|                                   | Money tree        | 154.91                | 2.11      | 2.26      |
|                                   |                   | 160.15                | 2.11      | 2.28      |
| Fungal Samples                    | Shiitake mushroom | 486.43                | 2.22      | 2.54      |
|                                   |                   | 491.91                | 2.23      | 2.55      |
|                                   | Oyster mushroom   | 407.14                | 2.22      | 2.55      |
|                                   |                   | 404.41                | 2.22      | 2.54      |
| Polysaccharide-Rich Plant Samples | Banana            | 39.82                 | 2.02      | 1.41      |
|                                   |                   | 43.12                 | 1.94      | 1.21      |
|                                   | Mango             | 23.34                 | 1.93      | 0.70      |
|                                   |                   | 23.88                 | 1.87      | 1.05      |
|                                   | Dragon fruit      | 26.78                 | 2.10      | 1.41      |
|                                   |                   | 27.58                 | 2.10      | 1.61      |
| Dried Seed Samples                | Soybean           | 282.09                | 2.18      | 2.26      |
|                                   |                   | 282.78                | 2.18      | 2.27      |
|                                   | Peanut            | 126.72                | 1.96      | 1.26      |
|                                   |                   | 128.65                | 1.96      | 1.27      |
|                                   | Sesame            | 120.27                | 2.01      | 1.58      |
|                                   |                   | 118.87                | 2.01      | 1.61      |

## Case 2

Comparison of sample extraction between Rhododendron and Rose samples with similar domestic products, as shown in the following figure.



| Product      | Sample Name  | Concentration (ng/uL) | A260/A280 | A260/A230 |
|--------------|--------------|-----------------------|-----------|-----------|
| Biospin      | Rhododendron | 374.74                | 1.90      | 1.97      |
|              |              | 375.36                | 1.89      | 1.95      |
| Competitor A |              | 129.96                | 2.07      | 1.97      |
|              |              | 134.75                | 2.07      | 1.97      |
| Biospin      | Rose         | 945.30                | 1.97      | 1.99      |
|              |              | 947.20                | 1.97      | 1.95      |
| Competitor A |              | 382.1                 | 2.14      | 2.28      |
|              |              | 386.68                | 2.15      | 2.28      |

Note: The sample input for all samples was 50mg, and elution was performed with 50μL elution buffer.

**Results:** Results show that this reagent kit can stably and efficiently extract total RNA from various plant samples, with extraction efficiency superior to that of competitors.

## Ordering Information

| Product Name                           | Cat#     | Package | Storage Condition |
|--|----------|---------|-------------------|
| Biospin Plant Total RNA Extraction Kit | BSC65T1A | 10T     | 2-30°C            |
|  | BSC65S1A | 50T     |                   |
|  | BSC65M1A | 100T    |                   |



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