The Best Kit for Challenging Plant Samples for the Following 6 Reasons:

1. Superior performance for challenging plant samples

- A single robust plant RNA lysis solution works for a wide range of plant species
- Only Norgen’s kit was able to isolate the small RNA species (white box)

2. Phenol-Free and True Total RNA (including microRNA)

- Novel RNA binding matrix (not silica) for small and total RNA
- Environmentally friendly RNA purification
- Purify small RNA without phenol (blue box)
- True total RNA profile without losing large RNA

Total RNA isolated from 50 mg leaves of various plants: Lanes: 1-Apple, 2-Peach, 3-Grape, 4-Pine, 5-Strawberry, 6-Pear. Total RNA was eluted in 50 μl and 7.5 μl was loaded on 1.2% MOPS agarose gel.

Total RNA from 0.1 mg of young peach leaves was purified with three different methods and 7.5 μl of the 50 μl were loaded on 1.2% MOPS and formaldehyde RNA gel (Panel A) and 1 μl of the 50 μl was analyzed on the Agilent® 2100 BioAnalyzer RNA Nano 6000 chip (Panel B).
3. High Purity of RNA Samples

- Single robust plant lysis buffer works better than two lysis buffer system from the competitor (Apple, peach, and pear)

4. Excellent Yield and Quality for Any Downstream Application

- Total RNA was purified from 100 mg of Chrysanthemum leaves using three different plant RNA isolation methods
- Norgen’s kit allows for sensitive viroid detection

5. Variety of Applications

- RNA sequencing
- Next Generation Sequencing
- RT-PCR
- qRT-PCR
- Pathogen detection e.g. viroid
- Northern blotting

6. Excellent Quality at an Affordable Price

- Norgen’s kits are priced at a more affordable rate than the leading competitor

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**Variety of Applications**

<table>
<thead>
<tr>
<th>Norgen Biotek</th>
<th>Leading Competitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robust Lysis Solution for Any Plant?</td>
<td>YES</td>
</tr>
<tr>
<td>Phenol</td>
<td>NO</td>
</tr>
<tr>
<td>Recovery of microRNA?</td>
<td>YES</td>
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<tr>
<td>Protocol Time</td>
<td>15 minutes</td>
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</table>

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**Quality and Price Comparison**

<table>
<thead>
<tr>
<th>Plant/Fungi RNA Kit</th>
<th>Leading Competitor Kit</th>
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<tbody>
<tr>
<td>Kit Price (USD)</td>
<td>$289.41</td>
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<tr>
<td>Price Per Prep (USD)</td>
<td>$5.79</td>
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PLANT RNA PURIFICATION KITS
BEST-IN-CLASS

Featured Products

<table>
<thead>
<tr>
<th>Kit Name</th>
<th>Size</th>
<th>Cat. #</th>
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<tbody>
<tr>
<td>Plant/Fungi RNA Purification Kit</td>
<td>50 preps</td>
<td>25800</td>
</tr>
<tr>
<td>Plant/Fungi RNA Purification Kit</td>
<td>96 preps</td>
<td>31300</td>
</tr>
<tr>
<td>Plant/Fungi RNA Purification Kit 96-Well</td>
<td>2 x 96 well plates</td>
<td>31900</td>
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</table>

Related Products

<table>
<thead>
<tr>
<th>Kit Name</th>
<th>Size</th>
<th>Cat. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant RNA/DNA Purification Kit</td>
<td>50 preps</td>
<td>24400</td>
</tr>
<tr>
<td>Plant/Fungi DNA Purification Kit</td>
<td>50 preps</td>
<td>26200</td>
</tr>
<tr>
<td>Plant/Fungi DNA Purification Kit 96-Well</td>
<td>2 x 96 well plates</td>
<td>26900</td>
</tr>
<tr>
<td>TruScript™ Reverse Transcriptase</td>
<td>10,000 Units</td>
<td>54440</td>
</tr>
<tr>
<td>TruScript™ First Strand cDNA Synthesis Kit</td>
<td>50 reactions</td>
<td>54420</td>
</tr>
<tr>
<td>TruScript™ First Strand cDNA Synthesis Kit for mRNA</td>
<td>50 reactions</td>
<td>54400</td>
</tr>
<tr>
<td>Bead Tubes AP</td>
<td>50/bag</td>
<td>26230</td>
</tr>
<tr>
<td>Bead Tubes AP</td>
<td>100/bag</td>
<td>26231</td>
</tr>
</tbody>
</table>

Featured Customer Testimonials:

"I am very pleased to inform you that Plant/Fungi Total RNA Isolation Kit worked very well for Sorghum sample. In a very short time we were able to isolate good quality and quantity RNA."
- University of Kentucky

"It is great!!!! I can’t take all the credit. Your kit is truly amazing. I have been telling others here about it."
- Agriculture and Agrifood Canada
**SELECT PUBLICATIONS**

**miRNA Sequencing**

**Title:** A Contig-Based Strategy for the Genome-Wide Discovery of MicroRNAs without Complete Genome Resources.  
**Authors:** Wen JZ, Liao JY, Zheng LL, Xu H, Yang JH, Guan DG, Zhang SM, Zhou H, Qu LH.  

**Title:** Trancriptional landscape of Aspergillus niger at breaking of conidial dormancy revealed by RNA-sequencing.  
**Authors:** Novodvorska M, Hayer K, Pullan ST, Wilson R, Blythe MJ, Stam H, Stratford M, Archer DB.  
**Journal:** BMC Genomics. 2013.

**Title:** Graft-induced Changes in MicroRNA Expression Patterns in Citrus Leaf Petioles.  
**Authors:** R. Tzarfati, S. Ben-Dor, I. Sela and E.E. Goldschmidt  
**Journal:** The Open Plant Science Journal. 2013.

**Title:** Identification and Characterization of miRNA Transcriptome in Potato by High-Throughput Sequencing.  
**Authors:** Zhang R, Marshall D, Bryan GJ, Homyik C.  

**Gene Expression Study**

**Title:** Expression analysis of histone acetyltransferases in rice under drought stress.  
**Authors:** Fang H, Liu X, Thorn G, Duan J, Tian L.  
**Journal:** Biochemical and Biophysical Research Communications. 2013.

**Title:** The transcription factor SISHINE3 modulates defense responses in tomato plants.  
**Authors:** Buxdorf K, Rubinsky G, Barda O, Burdman S, Aharoni A, Levy M.  
**Journal:** Plant Mol Biology. 2013.

**Title:** An Arabidopsis homolog of importin beta 1 is required for ABA response and drought tolerance.  
**Journal:** The Plant Journal. 2013.

**Title:** Novel variants of grapevine leafroll-associated virus 4 and 7 detected from a grapevine showing leafroll symptoms.  
**Authors:** Ito T, Nakaune R, Nakano M, Suzuki K.  
**Journal:** Archives of Viology. 2013.

**Title:** Silencing of the Host Factor eIF(iso)4E Gene Confers Plum Pox Virus Resistance in Plum.  
**Authors:** Wang X, Kohalmi SE, Svircev A, Wang A, Sanfaçon H, Tian L.  

**Title:** Weak-acid preservatives: pH and proton movements in the yeast Saccharomyces cerevisiae.  
**Authors:** Stratford M, Nebe-von-Caron G, Steels H, Novodvorska M, Ueckert J, Archer DB.  
**Journal:** International Journal of Food Microbiology. 2012.

**Title:** Gene expression indicates a zone of heterocyst differentiation within the thallus of the cyanolichen Pseudocyphellaria crocata.  
**Authors:** Chua JP, Wallace EJ, Yardley JA, Duncan EJ, Dearden PK, Summerfield TC.  
**Journal:** New Phytologist. 2012

**Title:** Novel variants of grapevine leafroll-associated virus 4 and 7 detected from a grapevine showing leafroll symptoms.  
**Authors:** Ito T, Nakaune R, Nakano M, Suzuki K.  
**Journal:** Archives of Viology. 2012

For more information visit our website www.norgenbiotek.com

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**NORGEN BIOTEK CORP.**  
The Sample Preparation Experts  
Manufactured in our ISO accredited facility.