

Plant/Fungi Total RNA Purification Kit

Norgen's Plant/Fungi Total RNA Purification Kit provides a rapid method for the isolation and purification of total RNA from a wide range of plant and filamentous fungal species. Total RNA can be purified from fresh or frozen plant tissues, plant cells or filamentous fungi samples using this kit. All sizes of RNA are purified, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA). The RNA is preferentially purified from other cellular components, such as proteins, without the use of phenol or chloroform. The purified RNA is of the highest integrity, and can be used in a number of downstream applications including real



time PCR, reverse transcription PCR, Northern blotting, RNase protection and primer extension, and expression array assays. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. The RNA is preferentially purified from other cellular components such as proteins without the use of phenol or chloroform.

Kit Specifications			
Column Binding Capacity	50 µg	Size of RNA Purified	All sizes
Maximum Column Loading Volume	650 µL	Time to Complete 10 Purifications	30 minutes
Maximum Amount of Starting Material:		Average Yield*	
Plant Tissues	50 mg	Tobacco Leaves (50 mg)	60 µg
Plant Cells	1 x 10 ⁶ cells	Grape Leaves (50 mg)	35 µg
Fungi (wet weight)	50 mg	<i>Alternaria tenuissima</i> (50 mg)	11 µg

Plant/Fungi Total RNA Purification Kit Benefits

Isolate RNA from a wide range of samples	Total RNA can be isolated from a wide range of plant and filamentous fungi samples.
Isolate a diversity of RNA species	All sizes of RNA are isolated, from large mRNA down to microRNA, without the use of phenol or chloroform.
Isolate total RNA, including viral RNA	RNA samples can be used for the detection of viral pathogens, as viral RNA is isolated with the total RNA.
High yield of RNA	High yields of purified RNA can be isolated with this kit
No phenol :chloroform extractions	Total RNA is isolated without the use of harmful chemicals such as phenol or chloroform. RNA is of the highest quality and can be used in a number of downstream applications

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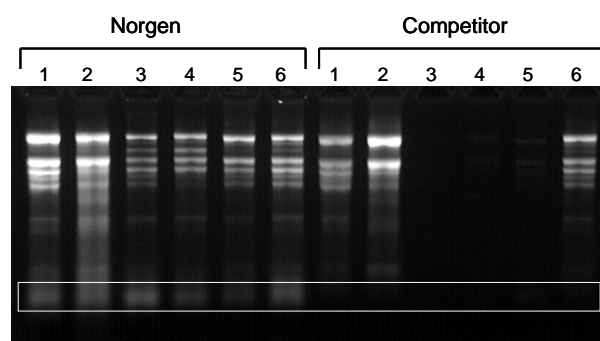


Figure 1. Isolation of High Quality RNA, even from Difficult Samples

RNA was isolated from 50 mg samples of apple (Lanes 1), peach (Lanes 2), grape (Lanes 3), pine needle (Lanes 4), strawberry (Lanes 5) and pear (Lanes 6) using Norgen's kit and a competitor's kit. Norgen's kit allowed for the isolation of high quality RNA from all the samples, including the difficult samples, while the competitor failed to isolate RNA from grape, pine needles and strawberry. Furthermore, only Norgen's kit was able to isolate the small RNA species (white box).

Plant/Fungi Total RNA Purification Kit Contents

1. Lysis Buffer C
2. Wash Solution A
3. Elution Solution A
4. Filter Columns
5. Spin Columns
6. Collection Tubes
7. Elution tubes (1.7 mL)
8. Product Insert

Shipping Conditions

The Plant/Fungi Total RNA Purification Kit is shipped at room temperature.

Species	Tissue Type
1. Tobacco (<i>Nicotiana tabacum</i>)	Leaf, stem, root
2. Strawberry	Leaf, fruit, flower
3. Tomato (<i>Lycopersicon esculentum</i>)	Leaf
4. Blackberry	Leaf, berry
5. Pepper (<i>Capsicum annuum</i>)	Leaf
6. Herbs	Leaf
7. Soy bean (legume)	Leaf, stem, root
8. Persimmon (<i>Ebenaceae</i>)	Leaf
9. Potato (<i>Solanum tuberosum</i>)	Leaf, tuber
11. <i>Arabidopsisthaliana</i> 1	Leaf, stem
12. Plum	Leaf, fruit
13. Peach (<i>Prunus persica</i>)	Leaf
14. Citrus	Leaf
15. Apple (<i>Malus sp.</i>)	Leaf, flower, pollen
16. Vanilla bean	Vanilla bean
17. Pear (<i>Pyrus sp.</i>)	Leaf
18. Cotton (<i>Gossypium</i>)	Leaf, cotton
19. Grape vine (<i>Vitis sp.</i>)	Leaf, grape, skin
20. Mangrove	Leaf
21. Plum (<i>Prunus sp.</i>)	Leaf
22. Chrysanthemum	Leaf
23. Palm (<i>Arecaceae</i>)	Leaf
24. Eastern White Red Cedar	Leaf
25. Pine needle (<i>Pinaceae</i>)	Needle
26. Corn	Leaf, corn
27. Cucumber	Leaf

Table 1. List of plant species from which high quality and quantities of RNA have been successfully isolated using Norgen's Plant/Fungi Total RNA Purification Kit.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- β -mercaptoethanol (optional)
- 96 - 100% ethanol
- Liquid nitrogen
- RNase-free DNase I (optional)

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. All the reagents should remain stable for at least 1 year in their unopened containers.

Cat #	Description	Quantity
25800	Plant/Fungi Total RNA Purification Kit	50 prep
31350	Plant/Fungi Total RNA Purification Kit	100 prep
31900	Plant/Fungi Total RNA Purification 96-Well Kit	2 x 96 well plates