



# RNeasy<sup>®</sup> PowerMax<sup>®</sup> Soil Pro Kit

Extracts high RNA yields from large quantities of soil

Overview

RNA Purification

Features & Benefits

Yield & Purity

Purity –  
Inhibitor Removal

RNA Quality

Ordering  
Information



Sample to Insight



# RNeasy PowerMax Soil Pro Kit procedure

The streamlined workflow allows for processing of 8 samples within 2 hours

Overview

RNA Purification

Features & Benefits

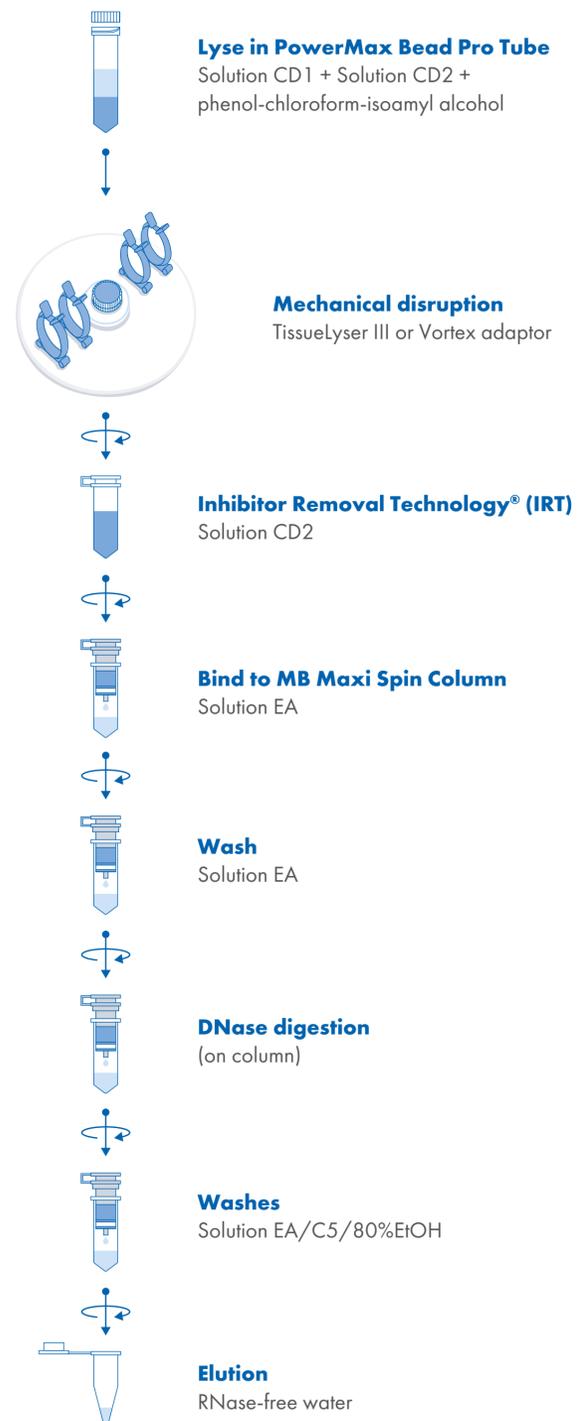
Yield & Purity

Purity –  
Inhibitor Removal

RNA Quality

Ordering  
Information

## RNeasy PowerMax Soil Pro Kit Procedure



[Download Handbook](#)



# Features and benefits

Overview

- High RNA yields due to high-capacity 50 mL bead-beating tubes
- Uses second-generation Inhibitor Removal Technology<sup>®</sup> (IRT)
- Suitable for soil types rich in humic acid, including compost, sediment and manure

RNA Purification

Features & Benefits

Yield & Purity

Purity –  
Inhibitor Removal

RNA Quality

Ordering  
Information

Features	Specifications
<b>Time per run</b>	2 hours for 8 samples
<b>Sample size</b>	5–15 g
<b>Throughput</b>	1–8 samples
<b>Sample types</b>	All soil samples including compost, sediment and manure
<b>Processing</b>	Bead beating
<b>Format</b>	Maxi silica spin column
<b>Storage temperature</b>	Store at room temperature (15–30°C) and 2–8°C (CD2, RDD and DNase I)



Yield & Purity

Soil Amount

# High RNA yields with excellent purity

Overview

RNA Purification

Features & Benefits

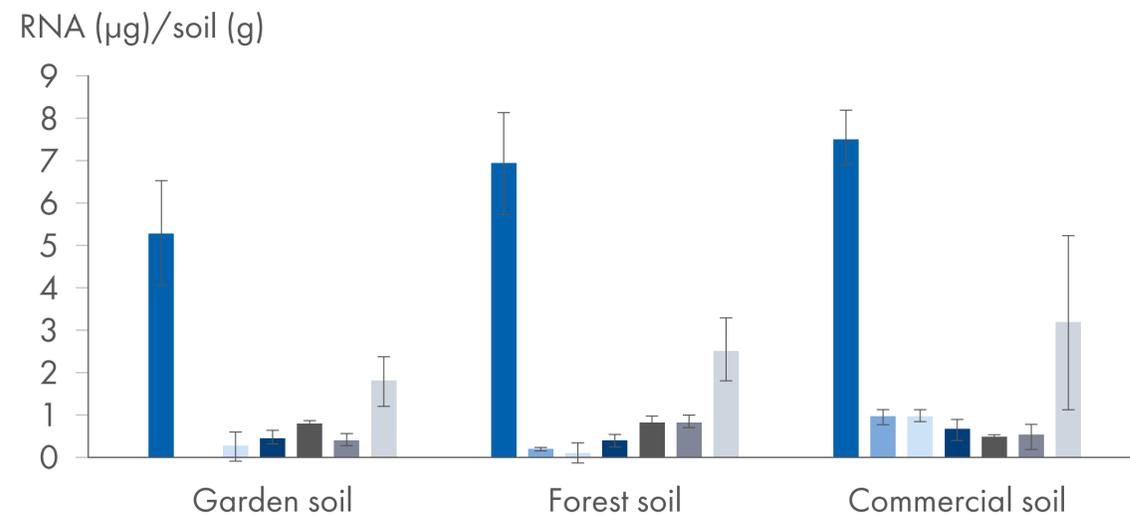
Yield & Purity

Purity – Inhibitor Removal

RNA Quality

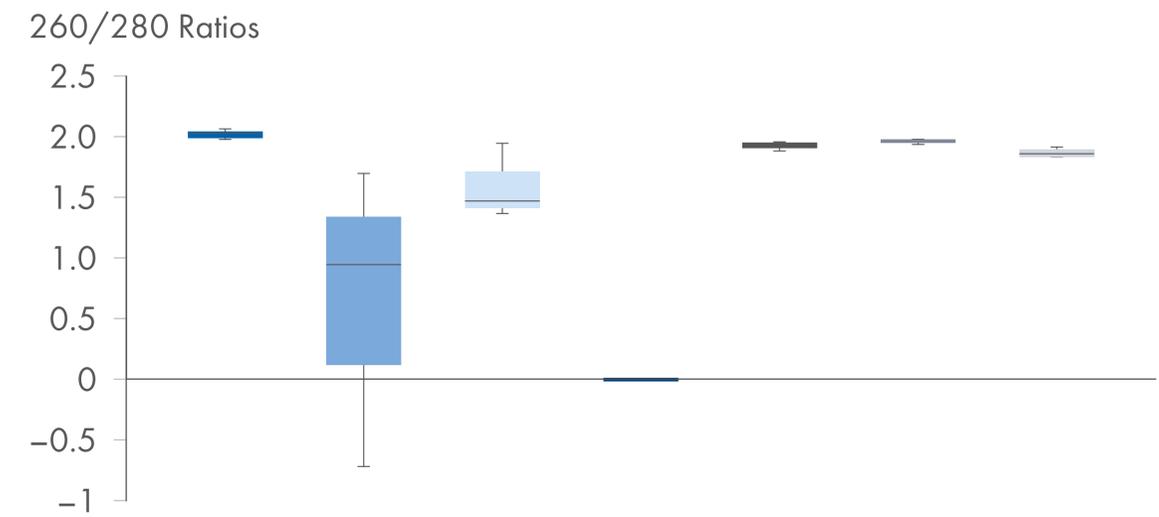
Ordering Information

### RNA Yields – Extraction Efficiency



- RNeasy PowerMax Soil Pro
- Supplier MP
- Supplier Z1
- Supplier Z2
- Supplier N
- Supplier M
- RNeasy PowerSoil Total RNA

### RNA Purity – 260/280 Ratios



- RNeasy PowerMax Soil Pro
- Supplier MP
- Supplier Z1
- Supplier Z2
- Supplier N
- Supplier M
- RNeasy PowerSoil Total RNA

**Extractions using the RNeasy PowerMax Soil Pro Kit result in high RNA yield with excellent purity in comparison to competitor kits.**

RNA was isolated from soil of three different sources in triplicate according to the respective manufacturer's protocol. RNA yield was quantified by a fluorometric measurement and the extraction efficiency was calculated using the soil amount applied for each preparation. RNA purity from all sources was determined by a UV-Vis measurement. High purity RNA has a 260/280 ratio of 2.0–2.2. Error bars represent standard deviation.



Yield & Purity

Soil Amount

# RNA yields according soil sample weight

Overview

RNA Purification

Features & Benefits

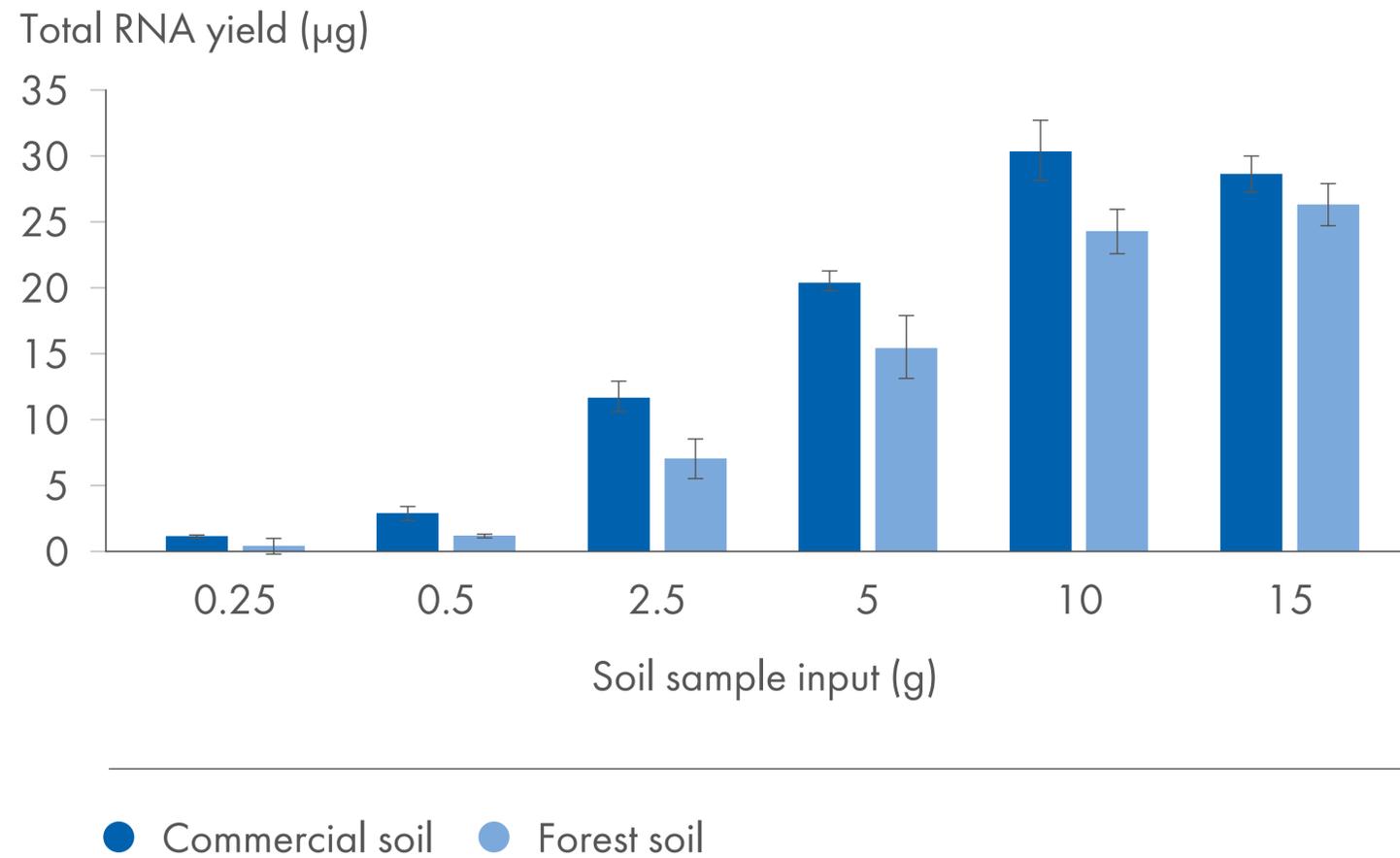
Yield & Purity

Purity –  
Inhibitor Removal

RNA Quality

Ordering  
Information

## RNA Yields



**The RNeasy PowerMax Soil Pro Kit is suitable for a wide range of soil amounts.**

RNA yield was determined from 0.25–15 g of commercial or forest soil according to the standard protocol. Bars represent three samples with the corresponding standard deviation.



# Efficient removal of PCR inhibitors

Overview

RNA Purification

Features & Benefits

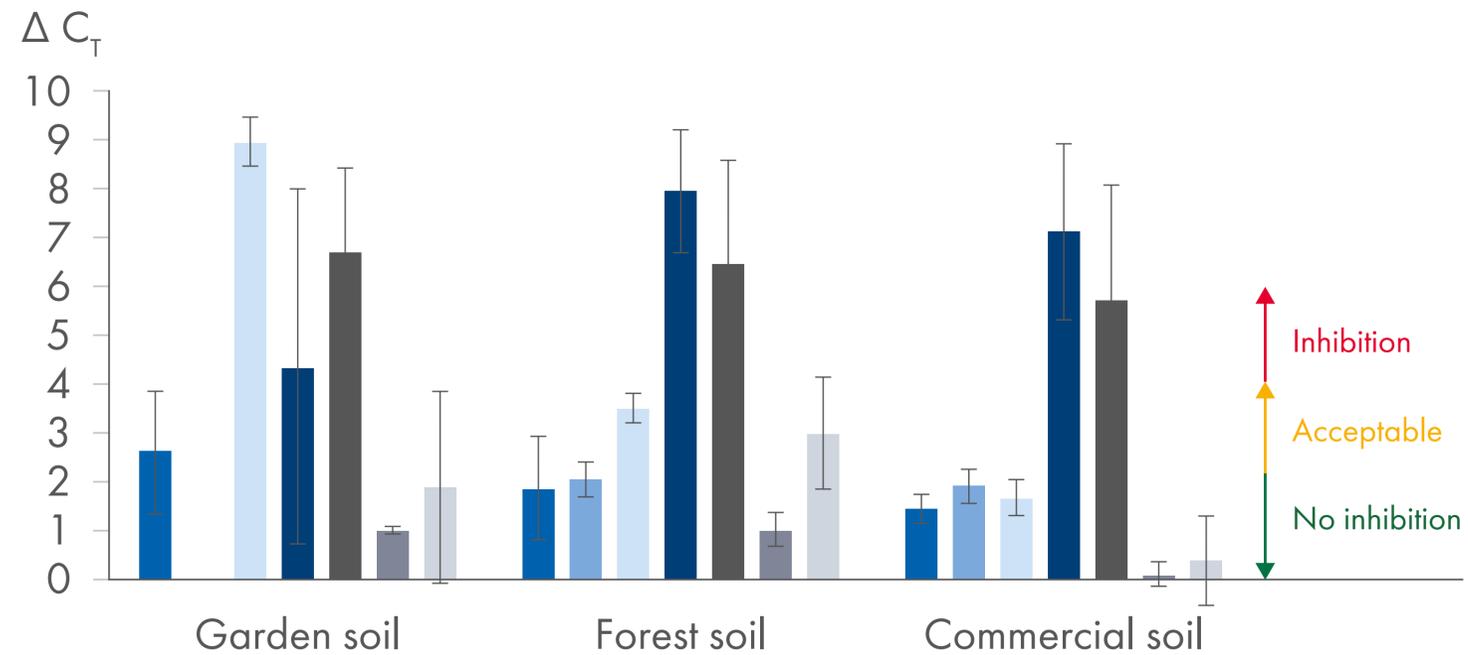
Yield & Purity

Purity –  
Inhibitor Removal

RNA Quality

Ordering  
Information

## RNA quality – PCR inhibition



- RNeasy PowerMax Soil Pro
- Supplier MP
- Supplier Z1
- Supplier Z2
- Supplier N
- Supplier M
- RNeasy PowerSoil Total RNA

### Purity of RNA obtained using the RNeasy PowerMax Soil Pro Kit in comparison to competitor kits.

Soil samples were processed according to the manufacturer's protocols. The internal control (IC) from the QuantiNova SYBR Green RT-PCR MM + QuantiNova IC Probe Assay was spiked with 2 µl isolated RNA. After IC amplification via RT-qPCR, the  $C_T$  values were compared to the  $C_T$  values for RT-qPCR with water added to the IC (representing no inhibition) by calculating delta  $C_T$ :  $C_T$  (RT-qPCR spiked with isolated RNA) –  $C_T$  (RT-qPCR spiked with water).



# High quality RNA yields when compared to competitor kits

Overview

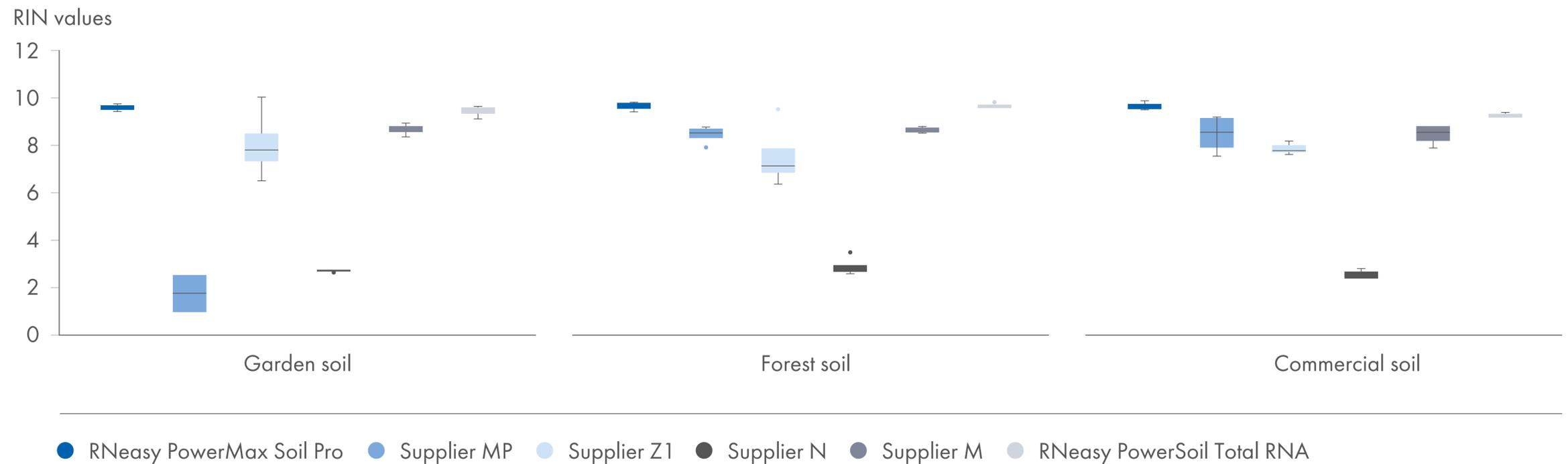
RNA Purification

Features & Benefits

Yield & Purity

Purity –  
Inhibitor Removal

## RNA Integrity



**Extractions using the RNeasy PowerMax Soil Pro Kit result in high RNA quality in comparison to competitor kits.**

RNA quality was determined by capillary gel electrophoresis and RIN (RNA integrity number) values were calculated. Error bars represent the standard deviation of four samples.

RNA Quality

Ordering  
Information



# Ordering Information

	Product	Contents	Cat. no.
Overview	<a href="#">RNeasy PowerMax Soil Pro Kit</a>	For 10 preps: PowerMax Bead Pro Tubes (10), Solution CD1, Solution CD2, MB Maxi Spin Columns, 50 mL Collection Tubes (40), Solution EA, Solution C5, RNase free water, RDD buffer, DNase I (lyophilized)	47082
RNA Purification	<a href="#">TissueLyser III</a>	Bead mill, 100–120/220–240 V, 50/60 Hz; requires TissueLyser Adapters (available separately)	9003240
	<a href="#">50 mL Tube Adapter Set</a>	TissueLyser adapter set for 2 x 4 tubes of 50 mL	11960
Features & Benefits	<a href="#">Vortex adapter</a>	For vortexing 50 ml tubes using the Vortex-Genie 2 Vortex	13000-V1-50
Yield & Purity			
Purity – Inhibitor Removal			
RNA Quality			

Ordering Information

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, Sample to Insight®, RNeasy®, Inhibitor Removal Technology®, PowerMax®.  
Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law.

© 2023 QIAGEN, all rights reserved. QPRO-4948 10/2023

Ordering [www.qiagen.com/shop](http://www.qiagen.com/shop) | Technical Support [www.support.qiagen.com](http://www.support.qiagen.com) | Website [www.qiagen.com](http://www.qiagen.com)

[View website](#)