

Stool DNA Isolation Kit

Norgen's Stool DNA Isolation Kit provides a convenient and rapid method to isolate total DNA from fresh or frozen stool samples. The kit can also be used to isolate DNA from stool samples preserved using Norgen's Stool Nucleic Acid Collection and Transport Tubes. The universal protocol conveniently allows for the isolation of total genomic DNA from all the various microorganisms and host cells found in the stool sample simultaneously. The kit removes all traces of humic acid using the provided Bead Tubes and a combination of chemical and physical homogenization and lysis, without the use of phenol-chloroform extractions. A simple and rapid spin column



column procedure is then used to further purify the DNA. The purified DNA is of the highest quality and is fully compatible with downstream PCR applications, as all humic acid substances and PCR inhibitors are removed during the isolation. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix.

Kit Specifications			
Maximum Stool Input (Fresh or Frozen Stool)	200 mg	Maximum Column Binding Capacity	50 µg
Time to Complete 10 Purifications	30 minutes	Maximum Column Loading Volume	650 µL

Stool DNA Isolation Kit Benefits

Universal procedure	Simultaneous isolation of both host and microbial DNA using a single convenient procedure
Remove all humic acid from DNA samples	The kit removes all traces of humic acid using the provided Bead Tubes and a combination of chemical and physical homogenization and lysis.
No organic extractions	Isolated high quality DNA without the use of phenol or chlorofom
Fast and easy processing	Rapid and convenient spin column format allows for the isolation of total stool DNA in 30 minutes.
Isolate high yields of total DNA	Isolate consistent, high yields of DNA free from all inhibitors including humic acid, that can used directly in downstream applications including PCR.

Stool DNA Isolation Kit

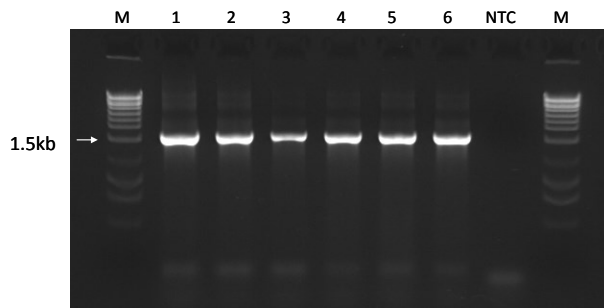


Figure 1. Detection of Prokaryotic Bacteria from Different Stool DNA Samples.

Total DNA was isolated from 200 mg stool samples using Norgen's Stool DNA Isolation Kit. Next, 2 µL (approximately 15 ng) from each 50 µL elution was used as the template for amplification of bacterial DNA using universal prokaryotic primers. Ten µL of the PCR products were loaded on a 1.5% 1x TAE agarose gel (Lanes 1 to 6). The 1.5 kb band was successfully amplified in all samples, indicating the quality of DNA for prokaryotic bacterial detection in end-point PCR. Lane M: Norgen's HighRanger 1kb DNA Ladder, and NTC is the no template control.

Stool DNA Isolation Kit Contents

1. Lysis Buffer L
2. Lysis Additive A
3. Binding Buffer I
4. Buffer SK
5. Wash Solution A
6. Elution Buffer B
7. Bead Tube
8. Mini Spin Columns
9. Collection Tubes
10. Elution tubes (1.7 mL)
11. Product Insert

Shipping Conditions

The Stool DNA Isolation Kit is shipped at room temperature.

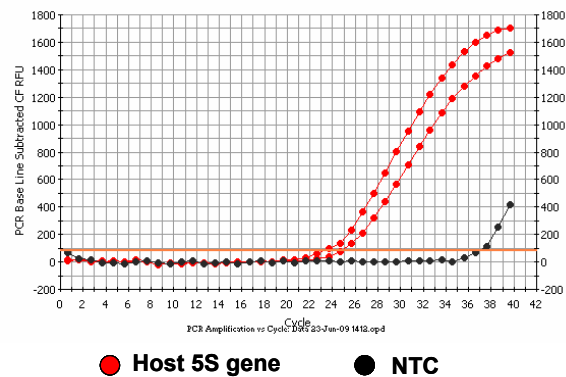


Figure 2. Detection of host DNA by using 5S primers in real-time PCR reaction (SYBR Green).

Norgen's Stool DNA Isolation Kit was used to isolate DNA from 200 mg stool samples. From each 50 µL elution, 15 ng of DNA (2 µL) was used as the template in a real-time PCR reaction to detect the human 5S gene. The PCR successfully detected the 5S gene from the host DNA, indicating the high quality of DNA isolated by Norgen's Stool DNA Isolation kit.

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- DNase-free microcentrifuge tubes
- Flat bed vortex or bead beater equipment
- 96 - 100% ethanol
- 70% ethanol

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
27600	Stool DNA Isolation Kit	50 preps