

# Food & Dairy Pathogen Detection

Reliable and Rapid Detection of Food and Dairy Bacteria

#### **Norgen Offers Complete Workflow Solutions:**

## All-inclusive RNA/DNA Isolation Products.

Our Food & Milk Kits extract DNA from milk, food or from enriched microorganisms, and both gram + and gram bacteria.

## Automation-ready solutions for consistency

Column, high-throughput, and magnetic beadbased systems for easy automation.

### Send us your samples, and we'll handle the rest

We provide DNA isolation, pathogen detection metagenomic sequencing, and bioinformatic analysis, delivering a detailed profile of the organisms in your batch.

#### **About Norgen**

We are a fully integrated North American biotechnology company focusing on sample collection, preservation, and purification for research and diagnostic applications.

Norgen Biotek was founded in 1998 by Dr. Yousef Haj-Ahmad. We have locations in Ontario, Canada and New York, USA.



#### **Food & Milk DNA Isolation Kits**



#### Food DNA Isolation Kit (Cat. 54500)

For the isolation of DNA directly from food or from enriched microorganisms

- Isolate DNA from a wide range of food materials. (e.g boiled, fluid, processed or raw food products)
- ✓ No hazardous chemicals required (e.g. phenol or chloroform)
- ☑ Effective lysis with Proteinase K and optional lysozyme treatment
- Fast (less than 15 minutes hands-on time) and convenient processing using a rapid spin-column format



## Milk Bacterial DNA Isolation Kit (Cat. 21550)

For the rapid purification of genomic DNA from various bacterial species found in milk

- Genomic DNA can be isolated from as few as 10 bacterial cells in 1 mL of milk
- ✓ Isolate genomic DNA from both Gram-negative and Gram-positive bacteria in milk
- ✓ Can process challenging samples such as mastitic milk
- ✓ Inhibitor-free DNA is ready for PCR, qPCR, Southern Blot, sequencing & more
- ▼ Fast and efficient spin-column format



## Milk DNA Preservation & Isolation Kit (Cat. 44800)

A rapid all-in-one procedure for the preservation and isolation of milk DNA at ambient temperatures.

- Milk samples are stable for 1 month at room temperature (or 1 week at 37°C) in the Preservation Solution
- Fast and easy processing using a rapid spin-column format
- ✓ DNA can be isolated and detected from as little as 100 µL of milk
- ✓ Isolate high quality genomic DNA



## Bacterial Genomic DNA Isolation Kit (Cat. 17900, 17950)

For the rapid preparation of genomic DNA from bacteria.

- ✓ Isolate genomic DNA from all types of bacteria (both Gram-positive and Gram-negative)
- Rapid and convenient spin-column protocol
- 96-well format available for high throughput
- Magnetic Bead Options Available
- High yield, high-quality DNA for sensitive downstream applications including sequencing, PCR, qPCR and more

#### Isolation and Detection of DNA from as Little as 10 Bacterial Cells in 1 mL of Milk

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Figure 1. Isolation and Detection of DNA from as Little as 10 Bacterial Cells in 1 mL of Milk. Increasing amounts of E coli (101 cells, 103 cells, 105 cells, 107 cells) were added to 1 mL pasteurized milk samples, and the bacterial DNA was subsequently isolated using Norgen's Milk Bacterial DNA Isolation Kit with a 200  $\mu L$  elution volume. One microliter of the isolated genomic DNA was then detected in a 20  $\mu L$  real-time PCR reaction using primers specific to E coli. Bacterial genomic DNA could be isolated and detected from all the 1 mL milk samples, including the sample that contained only 10 bacterial cells (blue line).

## Isolate DNA from a Wide Range of Food Samples.

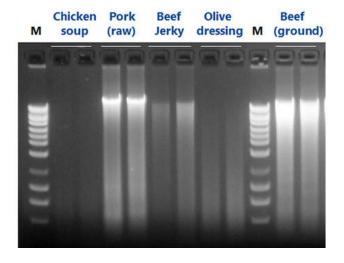


Figure 2. Isolate DNA from a Wide Range of Food Samples. Total genomic DNA was isolated from 200 mg of processed (chicken soup, beef jerky) or non-processed (raw pork, olive dressing, ground beef) food materials using Norgen's Food DNA Isolation kit. Following isolation, 10  $\mu$ L from each 100  $\mu$ L elution was loaded on 1% TAE agarose gel. Lane M: Norgen's HighRanger 1kb DNA Ladder.

#### **Food & Milk Pathogen Detection**

	Pathogen	CE-IVD Available
	Campylobacter jejuni TaqMan PCR Kit	
	Listeria monocytogenes TaqMan PCR Kit	<b>✓</b>
	Mastitis pathogens TaqMan PCR Kit	
	Salmonella enterica TaqMan PCR Kit	<b>✓</b>
	Streptococcus agalactiae TaqMan PCR Kit	
	Streptococcus dysgalactiae TaqMan PCR Kit	
	Streptococcus uberis TaqMan PCR kit	
NE	Anisakis spp TaqMan PCR Kit	

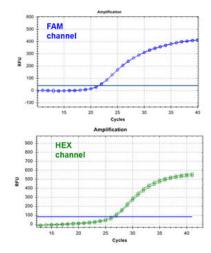


BACTERIA

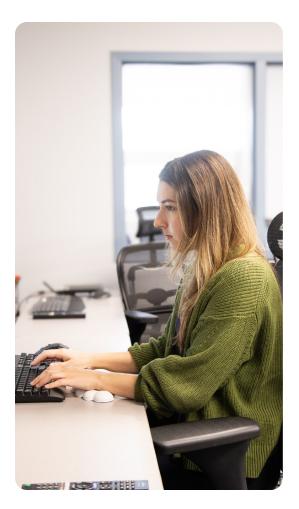
PARASITE

Scan for Food & Milk Pathogen Detection Kits

## Typical Results from Norgen TaqMan qPCR Kit with Internal Control.



**TaqMan PCR Kit - Figure 3. Example of TaqMan PCR Positive result.**Both PCR signals above the baseline from FAM and HEX channel indicate the successful PCR.



#### **Services: Designed to Discover**

In our accredited state-of-the-art laboratory, we offer an array of comprehensive services designed to deliver complete workflow solutions, encompassing DNA/RNA isolation and pathogen detection. Our experienced staff possess extensive expertise in handling a diverse array of sample types, including but not limited to plant, stool, saliva, soil, plasma, blood, and more. We are here to help!

- Comprehensive service for 16S rRNA sequencing
- DNA extraction service included
- Easy to challenging sample types including environmental
- Analyze entire bacterial communities with comprehensive bioinformatics analysis
- ☑ Identify phylogenetic or taxonomic classifications
- ✓ Fast turnaround time | 3 4 weeks



#### **Contact Our Services Team Today!**

Contact us at **services@norgenbiotek.com**Or find out more at **norgenbiotek.com/services** 

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## Enhance your lab with the complete workflow solutions from Norgen.







APPLICATION





