

# FAECAL DNA PCR (stool)

*The faecal Multiplex RT-PCR profile is capable of rapid, specific and sensitive detection of the bacterial and parasitic pathogens most commonly responsible for causing infectious gastroenteritis that may otherwise go undetected by traditional microbiological techniques. PCR (polymerase chain reaction) is based on molecular screening of individual parasites rather than detection of parasites based on examination of stool under a microscope.*

When diagnosing infectious gastroenteritis, conventional diagnostic methods such as faecal microscopy, culture, and sensitivities (and even biochemical tests and ELISA) can be laborious, expensive and insensitive. Additionally, although infection with multiple pathogens is common, existing diagnostic methods are typically ordered and performed for individual pathogens, such that these individual assays may routinely miss the diversity of infecting organisms.

DNA faecal PCR test detects parasite and bacterial DNA, making it a more accurate technique than a standard Micro, Culture and Sensitivity (MC&S) that would normally be requested.

Molecular methods provide a means for sensitive and rapid detection of enteric pathogens with improved performance and turnaround time.

The Faecal PCR also offers superior sensitivity and specificity.

**Enteric protozoans** - The sensitivity of the Multiplex PCR for the enteric protozoans when compared to microscopy varied from 97 - 100%; whereas the sensitivity of the microscopy compared to PCR varied from 11 - 90%.

**Enteric pathogenic bacteria** - The sensitivity of the Multiplex PCR for the enteric pathogenic bacteria compared to culture was 100%; whereas the sensitivity of culture compared to Multiplex PCR varied from 25% - 89%.

PATHOGENS TESTED FOR:	
Parasites	Bacteria
<i>Giardia intestinalis</i>	<i>Campylobacter spp.</i>
<i>Cryptosporidium</i>	<i>Salmonella spp.</i>
<i>Dientamoeba fagilis</i>	<i>Shigella spp.</i>
<i>Entamoeba histolytica</i>	<i>Yersinia enterocolitica</i>
<i>Blastocystis hominis</i>	<i>Aeromonas spp.</i>

## FAECAL PCR (stool) [Test Code: 2002]

- ❖ *Giardia intestinalis*, *Cryptosporidium*, *Dientamoeba fragilis*, *Entamoeba histolytica*, *Blastocystis hominis*, *Caplylobacter* spp., *Salmonella* spp., *Shigella* spp., *Yersinia enterocolitica*, *Aeromonas* spp. plus standard Micro, Culture and Sensitivity (MC&S).

## Other stool tests available

- **CDSA Levels 1 - 5 (stool) [2003 – 2009]:** Macroscopic & Microscopic Description; Digestive, Absorption and Metabolic markers; Inflammation markers; Tumour/Ulcer markers; Beneficial and other Bacteria; Yeasts; Parasites (visual detection); Antibiotics/Natural agents sensitivities (bacteria & yeasts)
- **Clostridium difficile (stool) [2017]:** *Clostridium difficile*
- **Helicobacter pylori antigen (stool) [2010]:** *Helicobacter pylori* antigen
- **Calprotectin (stool) [2001]:** Calprotectin
- **Pancreatic Elastase 1 (stool) [2014]:** Pancreatic elastase 1 (PE1)
- **Transglutaminase IgA (stool) [2016]:** Transglutaminase IgA
- **Genova GI Effects – Microbial ecology (stool) [2205]:** Commensal Bacteriology, Yeast and Fungal identification by DNA techniques, *Entamoeba histolytica* EIA, *Giardia lamblia* EIA, *Cryptosporidium* EIA
- **Genova GI Effects – Comprehensive (stool) [2200]:** Commensal Bacteriology, Yeast and Fungal identification by DNA techniques, *Entamoeba histolytica* EIA, *Giardia lamblia* EIA, *Cryptosporidium* EIA; Digestion, Absorption and Inflammation markers

## How to order a test kit:

To order a test kit simply request the test name and/or test code on a NutriPATH request form and have the patient phone NutriPATH Customer Service on 1300 688 522.



Phone **1300 688 522** for further details  
[www.nutripath.com.au](http://www.nutripath.com.au)