MP Biomedicals

Case study - *Feces*

Health

Detection of Kudoa septempunctata 18S Ribosomal DNA in Patient Fecal Samples from Novel Food-Borne Outbreaks Caused by Consumption of Raw Olive Flounder.

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J. Clin. Microbiol. 2012. Vol 50.

Overview

- **Keywords:** Food-borne disease, Parasites identification, Human feces, qPCR, *K.septempunctata*
- **Aim of the study:** Identification of a standard method for DNA extraction from fecal parasites
- **Application:** Quantitative PCR
- **Sample name:** Human fecal sample
- **Material:** FastDNA™ Spin Kit for Soil containing Lysing Matrix E (MP Biomedicals), QIAamp DNA stool minikit (Qiagen), UltraClean fecal DNA kit (Mo Bio)
- **Buffer:** provided with each of the three commercial DNA extraction kits

Protocol and Parameters

To compare the amount of *K.septempunctata* (parasites) DNA extracted using the three kits.

1. 200 mg of each sample and 200 µl of DNA elution buffer were used during the extraction procedure for each kit.
2. Extracted DNA was stored at -20°C until use.

Conclusion

- The FastDNA™ Spin Kit for Soil showed to be the **best DNA extraction method** providing the **highest PCR amplification**.
- The FastPrep® technology gives **higher yields** and increases detection limit threshold of PCR. FastDNA™ Spin Kit for Soil is the most efficient method for extracting parasites DNA from fecal samples.

Successful sample preparation using the MP Biomedicals FastPrep® product line has been highlighted in thousands of scientific articles. To access articles and other materials, visit www.mpbio.com/FastPrepLibrary.

25F0615-1