



# Microbiome sample management

Collect, stabilize & extract DNA for gut microbiome profile studies

**INVITEK**  
Molecular

# Gut microbiome sample management

Invitek Molecular offers complete solutions for reliable and validated microbiome sample management, from sample collection and stabilization to manual and automated DNA extraction. With the Stool Collection Tubes, we offer a versatile tool for gut microbiome analysis, microbiome-associated disease research and nutrigenomics. Our collection and extraction systems guarantee excellent performance in downstream NGS applications.

## Sample Collection Tubes with DNA Stabilizer



- ✓ Easy sampling with a spoon integrated in the collection tube. The collection tube is prefilled with DNA Stabilizer.
- ✓ Sample stabilization and preservation of the bacterial titre at the timepoint of collection
- ✓ Transport and storage of stabilized DNA at room temperature for 3 months – no cold chain required
- ✓ No costs associated with temperature-controlled shipping
- ✓  $\alpha$  - diversity equivalent to direct freezing of samples

Product name	Package size	Catalogue number
Stool DNA Stabilizer	180 ml	1038111100
Stool Collection Tubes with DNA Stabilizer	50 tubes	1038111200
	250 tubes	1038111300

## Extraction kits

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For manual extraction Invitek Molecular offers the PSP® Spin Stool DNA Basic Kit with the flexible options for sample lysis using the DNA Stabilizer. For comprehensive sample management – sampling, transport, storage and stabilization – the extraction kit can be combined with the Stool Collection Tubes with DNA Stabilizer.

For direct lysis and extraction from fresh or frozen stool samples the PSP® Spin Stool DNA Basic Kit can be combined with the DNA Stabilizer available in a bottle format.

For automated extraction, the InviMag® Stool DNA Kit/ KF96 enables high-throughput isolation of total DNA from up to 200 - 400 mg stool samples using magnetic beads on the KingFisher™ Flex (Thermo Scientific).

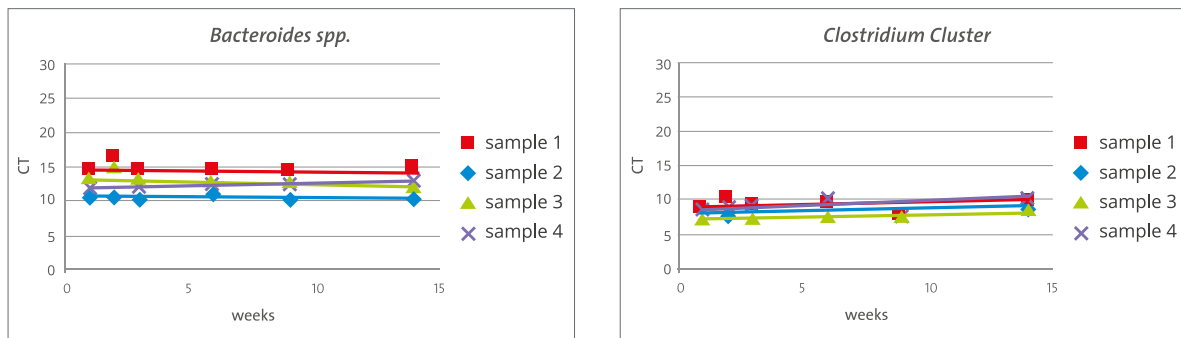


- ✓ Removal of all PCR inhibitors from DNA samples
- ✓ Isolation of DNA from microorganisms or from the host organism
- ✓ High quality DNA suitable for 16S rRNA Microbiome profiling, Shotgun Metagenomic Sequencing, qPCR and arrays
- ✓ Compatible with the Invitek Molecular Stool Collection Tubes with DNA Stabilizer

## Fast and convenient handling

Stool is a rich sample type that contains a variety of potential inhibitors. To remove inhibitors, Invitek Molecular extraction kits use the unique InviAdsorb matrix. Substances such as humic acid, phytochemicals and other digestive products bind to the matrix and are effectively removed. Zirconia beads and Proteinase K are used for sample lysis, so even difficult-to-lyse Gram-positive bacteria are effectively disrupted. Stool samples contain host DNA from colon epithelial cells, parasite DNA, bacterial DNA, DNA from food or DNA from gastrointestinal pathogens. Different protocols for sample lysis allow the accumulation of the target nucleic acid of bacterial or human origin.

## DNA extraction after sample storage at ambient temperatures



1.4 ml of preserved stool samples were tested on day 1, day 2, day 7, day 18, day 49 and day 105 for DNA isolation using the manual spin kit. 2 µl eluate were used in the RIDA®GENE Gut Balance real-time PCR assay from R-Biopharm (Darmstadt, Germany).

Kit	Starting material	Package sizes	Catalogue number
<b>Membrane adsorption</b>			
PSP® Spin Stool DNA Basic Kit (CE-IVD) (without lysis buffer)*	Fresh or frozen stool	50 preps	1038120200
	samples: max. 200 mg	250 preps	1038120300
	Stabilized stool samples (Stool Collection Tubes with DNA Stabilizer): 1.4 ml		
<b>Automated using magnetic beads</b>			
InviMag® Stool DNA Kit/KF96 (for use on KingFisher™ 96 and KingFisher™ Flex, Thermo Fisher Scientific)	up to 200 - 400 mg	5x96 preps	7438300200

\*) For sample lysis, the kit needs to be combined with Stool Collection Tubes with Stool DNA Stabilizer or Stool DNA Stabilizer (180 ml for 50 preps, 2 x 180 ml for 250 preps), for ordering information please refer to page 2.



In compliance with REGULATION (EU) 2017/746 on *in vitro* diagnostic medical devices. Not for *in vitro* diagnostic use in countries where the REGULATION (EU) 2017/746 on *in vitro* diagnostic medical devices is not recognized.

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