

## Master the Microbiome: The Latest Technologies for Accurate Analysis

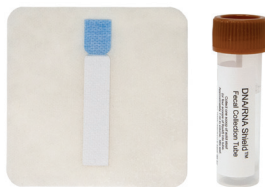
The human microbiome represents the most widely studied topic in the field of microbiomics, and feces provides a non-invasive and relatively easy way to study the microbial communities residing in the human gastrointestinal tract. Zymo Research offers effective solutions to address several challenges associated with collecting and processing fecal samples to streamline human microbiome research.



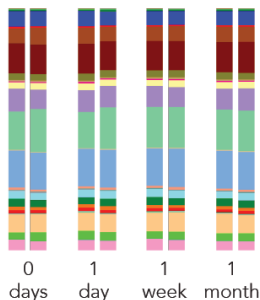
### Just Wipe Away!

Collecting fecal samples can be challenging, especially in large cohorts. Proper collection and preservation methods are crucial in maintaining the integrity of the sample during transportation and storage. DNA/RNA Shield™ is a solution to these issues by preserving the sample at ambient temperature, removing the need for cold chain during shipping, and chemically inactivating microbes, making them both safer and easier to work with in non-BSL settings.

For added convenience, DNA/RNA Shield is included in a variety of pre-filled collection devices. The Bunny Wipe™ with DNA/RNA Shield™ Fecal Collection Tube goes one step further by pairing pre-filled collection tubes with an easy-to-use fecal collection wipe. Similarly, DNA/RNA Shield™ SafeCollect™ Swab Collection Kit allows for simple swab collection into a spill-proof DNA/RNA Shield tube.



Bunny Wipe™ with DNA/RNA Shield™ Fecal Collection Tube (R1138)

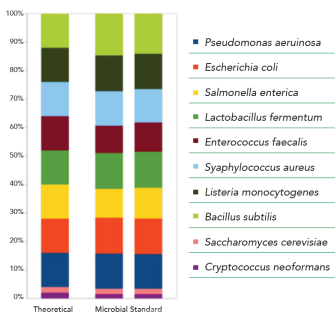


Genus-Level Comparison of Fecal Storage in DNA/RNA Shield™ at Ambient Temperature.

Sample Collection Products	Cat. No.
DNA/RNA Shield™	R1100
DNA/RNA Shield™ Fecal Collection Tube	R1101
DNA/RNA Shield™ Fecal Collection Tube (with Beads)	R1137
Bunny Wipe™ with DNA/RNA Shield™ Fecal Collection Tube	R1138
DNA/RNA Shield™ SafeCollect™ Swab Collection Kit	R1160

## Take Control of Your Research

A study is only as good as its controls, and this is especially true for microbiome research. With so many potential sources of variability (bias), it is important to use controls that can specifically address these challenges. The ZymoBIOMICS™ Microbial Community Standard contains a defined mixture of 8 bacteria and 2 yeast, representing a wide range of genome sizes and G/C content, making it the ideal positive extraction control, as well as an invaluable tool for workflow validation. The ZymoBIOMICS™ Gut Microbiome Standard provides 21 commensal and pathogenic strains of human gut microbes, in the form of bacteria, archaea, and yeast, allowing both cross-kingdom detection as well as strain-level resolution. Finally, the ZymoBIOMICS™ Fecal Reference with TruMatrix™ Technology offers a fully characterized composite fecal sample for the truest test of any metagenomics pipeline in the form of real sample composition and diversity.



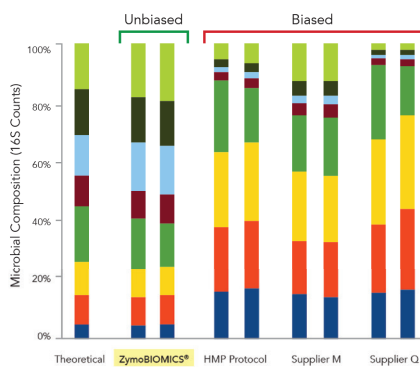
**Actual Microbial Proportions of ZymoBIOMICS™ Microbial Community Standard as Compared to Theoretical Values**

Microbiome Standards Products	Cat. No.
ZymoBIOMICS™ Microbial Community Standard	D6300
ZymoBIOMICS™ Gut Microbiome Standard	D6331
ZymoBIOMICS™ Fecal Reference with TruMatrix™ Technology	D6323



## Get the Most Out of Your Sample

Make certain microbes don't go undetected by using the only extraction kits validated for unbiased lysis against our ZymoBIOMICS microbial standards. The ZymoBIOMICS™ DNA Miniprep Kit utilizes BashingBead™ technology to ensure complete recovery of Gram positive and negative bacteria, archaea, and yeast. This includes certified low bioburden reagents and robust inhibitor removal technology to provide the best sequencing results possible. Looking to automate? The ZymoBIOMICS™ 96 MagBead DNA Kit offers all the same features, in an automation-ready format, with scripts for the most commonly used liquid handlers and bead movers. Interested in metatranscriptomics as well? The ZymoBIOMICS™ DNA/RNA Miniprep Kit can be used to capture both DNA and RNA as separate fractions from the same sample source.



ZymoBIOMICS™ Microbial Community Standard is Used to Assess Lysis Bias in Various Common Extraction Methods

DNA/RNA Extraction Products	Cat. No.
ZymoBIOMICS™ DNA Miniprep Kit	D4300
ZymoBIOMICS™ 96 MagBead DNA	D4302
ZymoBIOMICS™ DNA/RNA Miniprep Kit	R2002



## Sample to Result, In a Flash

Tired of lengthy library prep protocols that require tedious normalization of each sample? Looking to avoid complicated workflows or turn around high sample volumes in a short amount of time? The Quick-16S™ Plus NGS Library Prep Kit (V3-V4) and Quick-16S™ Plus NGS Library Prep Kit (ITS) utilize novel Equalase technology to amplify sample inputs from as little as 100 femtograms without the need for manual normalization, simply pool by equal volume and go! This, combined with pre-aliquoted qPCR Premix Plates reduces hands-on times to as little as 30 minutes to prepare 96 sequencing-ready libraries. The Quick-16S™ Plus NGS Library Prep Kit (V4) pairs this same workflow with custom sequencing primers to allow for v4 amplicon sequencing with the 300-cycle kits on all Illumina platforms.

### Quick-16S™ Plus Protocol

1-Step PCR Amplification



Pooling by Equal Volume



One Single Clean-up of Final Library

Total Hands-on Time for 96 DNA Samples: **30 minutes**

### Illumina16S Protocol

Targeted Sequencing Amplification



96-well AMPure® Bead Clean-up



Index PCR



96-well AMPure® Bead Clean-up



96-well TapeStation® Quantification



Library Normalization and Pooling

Total Hands-on Time for 96 DNA Samples: **4 hours**

### Library Prep Products

### Cat. No.

Quick-16S™ Plus NGS Library Prep Kit (V3-V4)

D6420

Quick-16S™ Plus NGS Library Prep Kit (ITS)

D6424

Quick-16S™ Plus NGS Library Prep Kit (V4)

D6430

Quick-16S™ Plus NGS Library Prep Kit (V1-V2, V1-V3)

Coming Soon!

Let us do the analysis so you don't have to. Inquire with [services@zymoresearch.com](mailto:services@zymoresearch.com) and see how our service group can leverage the same technologies to provide you with publication-ready data.

**Get 20% OFF\* Any Order**  
**Use Promo Code: [BTmicrobiome](#)**

\*Discount applies to qualified Direct U.S. customers only. Promotion ends September 30, 2023. This discount cannot be used with any other promotions, or with existing discounts from distributors or stockrooms. Other restrictions may apply.

**Quick-16S™ Plus Kits Offer Significant Optimization Over Traditional Targeted Library Prep Protocols**



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