

MGIEasy Microbiome DNA&RNA Extraction Kit (with Host Depletion)

MGIEasy Microbiome DNA&RNA Extraction Kit can be used to extract DNA and RNA of microorganisms such as bacteria (including G+ and G - bacteria), fungi, mycoplasma, DNA or RNA viruses from blood (including whole blood, serum, plasma), sterile body fluids (including urine, sputum, cerebrospinal fluid, bronchoalveolar lavage fluid), swabs (including pharynx, mouth, nose), stool, tissues and other samples. Simultaneously equipped with MGIEasy Host DNA Depletion Kit, it can effectively remove host nucleic acids from swabs and body fluid (saliva, blood, etc.) samples.

The extracted product is suitable for different Downstream applications such as PCR qPCR, gene sequencing (mNGS, tNGS, RNA seq). They can meet the needs of different applications.



Efficient Removal of Host DNA

Adapt to host DNA removal kit, it can remove over 99% of the host DNA in the sample.



Effective control of background bacterial contamination

Adopting multiple special processes to efficiently remove background bacteria from the reagents, effectively controlling background bacterial contamination.



Widely application scope

Capable of processing a variety of biological fluid samples, including urine, saliva, sputum, blood, etc.; swab samples; as well as fecal and tissue samples.



High extraction efficiency

Adapt to a grinding tube, use a mixture of small and large grinding beads to thoroughly grind thick walled pathogenic microorganisms and release nucleic acids



High sensitivity

Capable of extracting low concentration samples with a minimum detectable limit of 20 IU/mL



Adaptive automation

Adapt to automated sample preparation systems such as MGISP-NEX, MGISP-NE32, MGISP-960, etc.



Ordering information

Name	Item.NO	Model	Specification	Unit	qualification	Expiration date
MGIEasy Microbiome DNA&RNA Extraction Kit	940-002223-00	PMT-48	48 preps	Kit	RUO	18months
	940-002222-00	PMT-96	96 preps	Kit	RUO	
MGIEasy Host DNA Depletion Kit	940-001302-00	PMT-48	48 preps	Kit	RUO	12months



Product performance

- The host nucleic acid removal efficiency is high and there is no loss of microbial nucleic acid:

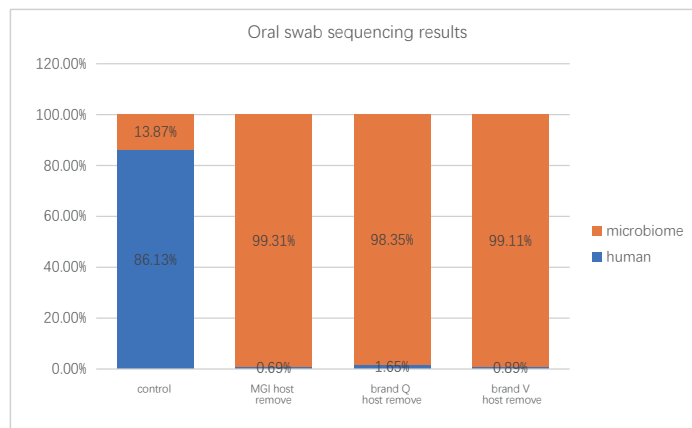


Figure 1: Using MGIEasy Host DNA Depletion Kit and similar kits in the market to remove host nucleic acid and extract nucleic acid from 1mL oral swab samples. Extraction products using MGIEasy Fast PCR-FREE FS Library Prep Set V2.0 for DNA library construction, DNBSEQ-G400 (PE150) for sequencing, and PF15.0 for analysis.

According to bioinformatics analysis, the samples subjected to host DNA removal showed that compared to the control group, the proportion of reads from the host decreased from 86% to less than 1%. After pre-treatment with MGIEasy Host DNA Depletion Kit, the proportion of microbial reads significantly increased by 7.6 times, and the performance was better than that of similar brands in the market.

- Wide sample range and superior extraction performance compared to similar extraction kits in the market:

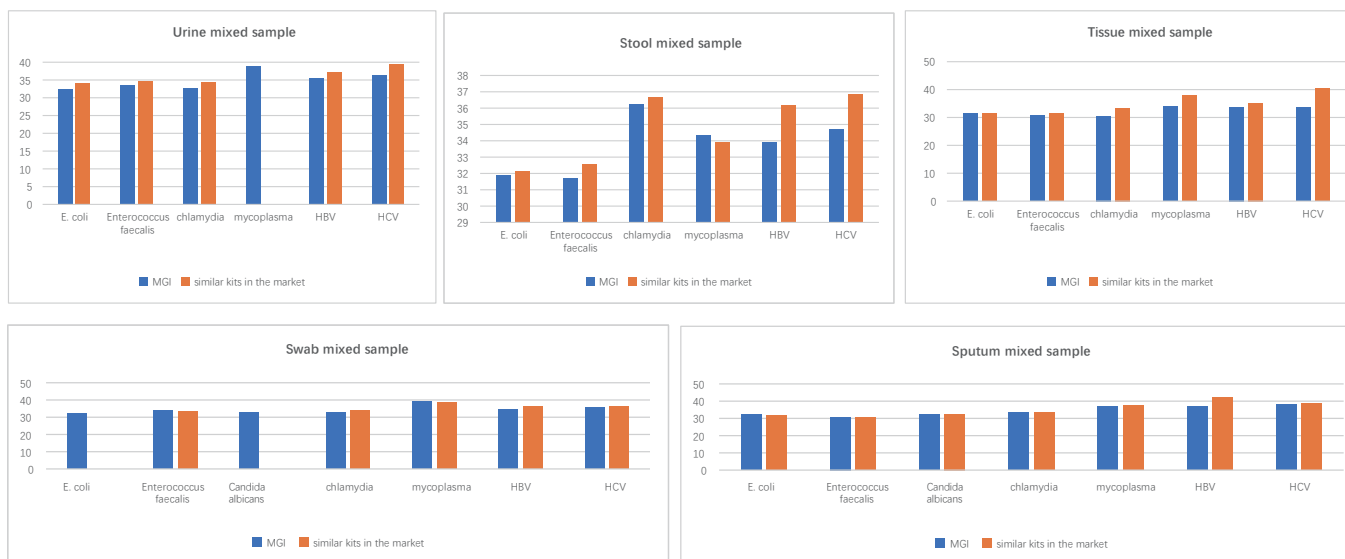


Figure 2: Using MGIEasy Microbiome DNA&RNA Extraction Kit and similar kits in the market, extract 200 μ L of urine, 5mg of stool, 2mg of mouse liver tissue, 50 μ L of sputum, and 200 μ L of swab mixed samples (the samples contain different types of including 1×10^3 Enterococcus faecalis, and contain 1×10^4 Escherichia coli, 1×10^4 Candida albicans, 100 copy Chlamydia trachomatis, 200 copy mycoplasma, 100IU HBV, and 100IU HCV), the extracted products were subjected to qPCR detection.

According to the CT values, MGI kits can simultaneously extract from different sample types, achieving no missed detections or false negatives. And its performance is superior.

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