

MagBeads FastDNA Kit for Microbiome

(Ready-to-Use for MagFlex-96™)

Cat. No.: 119613096 (96 PREPS)



Scan QR code for more information
from instruction manual

Quick-Start Protocol

Revision March 27, 2026

The kit enables efficient and unbiased lysis of microbes, including gram-positive/negative bacteria, fungi, protozoans, and viruses found in various samples such as soil, swabs, body fluids, and milk.

Notes before starting:

- The protocol is compatible with MagFlex-96™ aNAP System.
- If **Buffer MGB1** has precipitated, heat at **37°C** until precipitate dissolves.
- Store **Buffer MGB2** at **2-8°C** upon arrival.
- Use the centrifugation speed stated in the manual as a guideline; if 15,000 g is not feasible, use the maximum speed available.
- Refer to the subsequent table for pretreatment protocols and dosages applicable to various samples.

Sample Type	Optimal amount of sample usage	Pretreatment
Bacteria	50-100 mg (wet weight) or up to 10 ¹⁰ bacterial and 10 ⁹ yeast cells	Microorganisms can be resuspended using 815 µL of Buffer MGB1 before being transferred to Lysing Matrix E for step 2.
Sputum	< 300 µL	Add sputum directly to the Lysing Matrix E for lysis. For large volume sputum pretreatment, refer to the manual.
Bronchoalveolar lavage fluid	1-10 mL	After centrifuging for 15 min @ 3,000 g (4°C), recover the precipitate for lysis.
Urine	1-20 mL	After centrifuging for 15 min @ 14,000 g, recover the precipitate for lysis.
Milk	1-10 mL	Same as urine
Soil/Vinasse	100-250 mg	Can be directly added to Lysing Matrix E for lysis.
Swab	1 ea	A swab can be processed directly in Lysing Matrix E or after soaking in Buffer MGB1, as detailed in the manual.

Note: For samples that are difficult to lyse such as spores, increase lysis speed to 6-7 m/s; for samples that are easy to lyse, the lysis time can be reduced to improve efficiency. Refer to manual for specific sample processing methods.

Protocol

Lysis & remove inhibitor

Manual pipetting procedures:

1. Add sample and **815 µL Buffer MGB1** to **Lysing Matrix E** tube.
Note: Refer to the preceding table for sample pretreatment procedures.
2. Invert the tubes several times to mix the lysing matrix and buffer. Homogenize with FastPrep® instrument for **45 sec twice** at speed setting of **5 m/s** with a **5 min** interval. Centrifuge for **2 min @ ≥15,000 g**.
Note: Vortex the samples at **2,500-3,000 rpm** for **10 min** if a **FastPrep®** instrument is unavailable. Secure samples on the vortex through an adaptor to ensure homogenization.
3. Transfer all supernatant into 2 mL centrifuge tube (self-provided). Add **300 µL Buffer MGB2**, invert and mix 5 times. Centrifuge for **2 min @ ≥15,000 g**.

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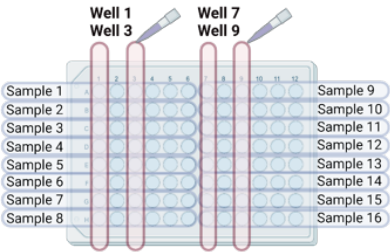
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Quick-Start Protocol

Load sample

MagFlex-96™ aNAP System Capacity: Up to 16 samples per plate



Transfer the supernatant
(from step 3) equally into
Well 1/3 or Well 7/9

Flow - Chart

Run

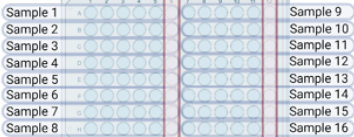
Insert the Mixing Sleeves to well #2 or #8 of MagFlex Plate MGB.
Place the plate in MagFlex-96™ aNAP System and Run the following program.

Step	Well	Process	Volume	Times (min)			Mixing Speed	Temp(°C)
				Mix	Collect	Wait		
1	6	Load Beads	150	1	1	0	2500	RT
2	1	Bind 1	800	5	1	0	2500	RT
3	3	Bind 2	800	5	1	0	2500	RT
4	4	Wash 1	800	3	1.5	0	3000	RT
5	5	Wash 2	800	3	1	3	3000	RT
6	6	Elute	150	15	1	0	3000	55
7	2	Abandon Beads	100	1	0	0	2500	RT

Elute

MagFlex-96

Well 6 Well 12



Transfer each eluate from **Well 6**
or **Well 12** into a clean 1.5 mL
microcentrifuge tube



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