

Product Application



DNA Extraction from bacteria in mouse feces

Kit : Maxwell® RSC Blood DNA Kit (Catalog# AS1400)

PowerSoil DNA Isolation Kit (MO BIO Laboratories, Inc. Distributed by Funakoshi in Japan)

Analyses : NanoDrop, Quantus Fluorometer & QuantiFluor ONE dsDNA System, V1 NGS (Illumina MiSeq)

Sample Type(s) : Mouse feces

Input : 300µl

Protocol :

1. Put 200mg of mouse feces into a crusher tube.
2. Add 60µl of C1 solution of PowerSoil DNA Isolation Kit and crusher beads into the tube.
3. Vortex the tube at the highest speed with Vortex Genie 2 x 30 minutes
4. Centrifuge the tube at 10,000g x 2 minutes. Transfer the supernatant (approx. 400~500µl) into a new tube.
5. Add 300µl of Lysis Buffer and 30 µl of Proteinase K Solution to 300µl of sample.
6. Incubate the tube at 56°C x 20 minutes
7. Transfer the whole lysate into well #1 of Maxwell RSC Blood DNA cartridge. Then run the method.

Results:

The concentration of DNA was measured by NanoDrop and Quantus Fluorometer/QuantiFluor ONE dsDNA System. Elution volume: 50µl

		C-1	E-1	L-1
NanoDrop	Conc. (ng/µl)	164.60	35.00	101.60
	A260/280	1.87	1.60	1.71
	A260/230	1.97	0.40	0.64
Quantus Fluorometer &	Conc. (ng/µl)	169	22	15

Product Application

QuantiFluor ONE dsDNA System				
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Conclusion :

V1 region of 16S rRNA was amplified with extracted DNA as a template with ExTaq Kit

The library was created by using U2 nano Sample Prep Kit (Illumina)

Sequence analysis on MiSeq was done with V1 Reagent Kit

Floral analysis was done by controlling the sequence result with the QIIME

(Quantitative Insights Into Microbial Ecology).

The DNAs extracted by Maxwell RSC showed the similar floral pattern as the DNAs extracted by PowerSoil DNA Isolation Kit (MO BIO Laboratories, Inc.) as below.

