



SuPure Bacterial/Fungal DNA Isolation Kit

Catalog No

- NA01C100
- NA01C101

Size

- 50 preps
- 100 preps

Description: The SuPure Bacterial/Fungal DNA Isolation Kit is designed for the simple, rapid isolation of inhibitor-free, Next-Generation Sequencing (NGS) and PCR-quality DNA from liquid and/or solid culture media. The kit can be used to successfully isolate DNA from tough-to-lyse Gram-positive and Gram-negative bacteria, fungi, algae, protozoa, etc. that inhabit environmental samples. The procedure is easy and can be completed in as little as 25 minutes. Colonies are added directly to a Beading Tubes and rapidly and efficiently lysed by bead beating without the use of organic denaturants or proteinases. The SuPure Bacterial/Fungal DNA Isolation Kit is then used to isolate the DNA, which is subsequently filtered to remove humic acids/polyphenols that inhibit PCR. The DNA is ideal for downstream molecular-based applications including PCR, NGS, arrays, genotyping, etc.

Kit Components:

| Component | Amount | Storage |
|--------------------|------------|---------|
| Bead Tube | 50-100 pcs | RT |
| Bead Buffer | 25-50 ml | RT |
| Lysis Buffer | 25-50 ml | RT |
| Wash Buffer | 25-50 ml | RT |
| Elution Buffer | 5-10 ml | RT |
| Spin Column | 50-100 pcs | RT |
| Collection Tubes | 50-100 pcs | RT |
| Instruction Manual | 1 pc | RT |
| RNAse | 10-20 ml | 4 °C |

Storage Conditions:

Store all contents at room temperature.

Kit Protocol:

- 1) Add 1-5 mg of bacteria or fungi colony to a Bead Tube. Add 500 µl Beading Buffer to the tube.
For liquid media samples: Centrifuge the 15 ml-50 ml environmental water sample (4,000 x g for 10 minutes). Discard the supernatant. Add 200 µl of PBS to the pellet and vortex to resuspend. Transfer all resuspended water sample (200 µl) to Bead Tubes. Add 500 µl Beading Buffer to the tube.
- 2) Vortex the Bead Tubes for 15 minutes.
- 3) Centrifuge the Bead Tubes in a microcentrifuge at $\geq 10,000 \times g$ for 1 minute.
- 4) After centrifugation, 400-500 µl of supernatant was taken into a clean tube and 500 µl of "Lysis Buffer" was added.
- 5) Add 20 µl RNAse to the tube and incubate 15 mins at 60 °C.
- 6) After incubation, the mixture was transferred to a Spin column and centrifuged at 10000xg for 1 minute.
- 7) After the liquid passing through the column was discarded, 500 µl of "Wash Buffer" was added to the silica column and centrifuged at 10000xg for 1 minute.
- 8) Repeat the Step 6.
- 9) After the liquid passing through the column was discarded, the Spin column was centrifuged empty at 15000xg for 1 minute.
- 10) After centrifugation, after the silica column was transferred to a clean 1.5 ml microcentrifuge tube, 50 µl of DNA Elution Buffer was added to the column matrix and centrifuged at 15000xg for 1 minute.

The obtained DNA is now suitable for PCR, NGS, arrays, genotyping, etc. applications.

