

**Protocol for DNA purification from soil samples**

1. Dehydrate soil samples with ethanol
  - a. 250 µl of sample mixed with 1 ml of 100 % ethanol in tube
  - b. Vortex, then sediment
  - c. Extract the supernatant
  - d. Repeat once
2. Dry the sample at 55°C in a heating block
3. Transfer 100 µg into a new tube and add 400 µl of TE Buffer, 40 µl of PK, and 400 µl of Lysis Buffer. Mix well by inverting and pulse-vortexing the tube for 15 s. Incubate at 65°C for 3 hours
  - a. Vortex at the 30 min, 1hr, 2hr, and 3hr
4. Spin down and transfer the supernatant into a new tube and discard the pellet.
5. Proceed with standard protocol
  - a. Add 1.2 volumes of Binding Buffer and 20 µl of Magnetic Particles.
  - b. Incubate 5 – 10 minutes keeping the particles in suspension.
  - c. Wash 3 times; twice with 750 µl of Wash Buffer 1 and once with 750 µl of Wash Buffer 2
  - d. Elute in 20 - 200 µl of Elution Buffer

**Table 1.** Reagent volumes for genomic DNA purification from soil

Reagent	Reagent volume per preparation
<b>Sample amount</b>	<b>250 µl</b>
100 % Ethanol	2 x 1 ml
TE buffer	400 µl
Lysis Buffer	400 µl
Proteinase K	40 µl
Binding Buffer	1.2 volumes
Magnetic Particles	20 µl
Wash Buffer 1	2 x 750 µl
Wash Buffer 2	750 µl
Elution Buffer	20 - 200 µl

*For research use only*