

# Genaxxon BioScience Plant DNA Clean-up Kit

Magnetic Beads Plant genomic DNA Mini Prep Kit  
for purification of plant-DNA

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## Purification Protocol for DNA from 20- 50 mg Plant Material

**Disrupt and homogenize 20-50 mg plant material using one of the following methods (1a Bead-Mill or 1b Mortar and Pestle)**

### 1a. Bead-Mill

(eg Retsch, Geno/Grinder 2000, FastPrep) or rotor-stator (eg Ultraturrax)

Add **400 µl Lysis Buffer** and **2 µl RNase A** (100 mg/ml) to the sample in either a 96 deep well plate or a 2 ml screw cap tube and homogenize according to the instrument supplier's instructions. Times and speed have to be determined for each sample type.

### 1b. Mortar and Pestle

Thoroughly grind the sample in liquid nitrogen to obtain a fine powder. Add **400 µl Lysis Buffer** and **2 µl RNase A** (100 mg/ml) to the ground powder in the tube and mix thoroughly.

2. Add **30 µl** re-suspended **Magnetic Beads** and **320 µl Binding Buffer**.  
6 pipetting strokes and incubate 5 minutes at room temperature.
3. Following incubation, place the tube in a Magnetic Separator to draw the **Magnetic Bead/DNA Complex** to the side of the tube. Leave 2 minutes, then discard the supernatant and remove the tube from the magnet position.
4. Add **900 µl Washing Buffer A** to the tube and thoroughly re-suspend the beads in the washing buffer by pipetting the bead pellet up and down 15 times. Incubate for one minute and separate the beads using the Magnetic Separator and discard supernatant.
5. Repeat the washing procedure using **900 µl Wash Buffer B**.
6. Repeat the washing procedure using **900 µl 70% EtOH**.
7. With the tube in the Magnetic Separator and the beads attracted to the side of the tube gently add **1 ml** (or as large a volume as possible) **Washing Buffer C**, **being careful not to disrupt the pellet**. Leave 60 seconds without re-suspending the bead pellet and then carefully remove and discard the supernatant.  
(NOTE: re-suspension of the bead pellet in **Washing Buffer C** may reduce the final DNA yield.)
8. Add **200 µl** (or another suitable volume) of **Elution Buffer** to the tube and thoroughly re-suspend the **Magnetic Bead/DNA Complex** by pipetting the pellet up and down 10 to 15 times.
9. Incubate the suspension for **10 minutes at 55°C** with agitation (1000 rpm) to facilitate complete DNA elution.
10. Following DNA elution place the tube in the Magnetic Separator for 2 minutes or until all the **Magnetic Beads** have separated from the eluate. Transfer the eluate containing the purified DNA to a clean tube.