



Protocol for Plant DNA purification from seeds

This protocol is for use of a QuickPick™ kit together with a QuicPick™ magnetic tool.

1. Disrupt and homogenize the sample using bead miller, liquid nitrogen or tissue grinder until sample is homogenous. Other homogenization methods can also be used (See the detailed instructions from sample preparation section in QuickPick SML Plant DNA kit insert).
2. Add Lysis Buffer and Proteinase K into the homogenized sample according to the table 1. Mix properly by inverting the tube and pipetting up and down several times. Optional: If an RNA-free DNA preparation is required, add RNase solution into samples before starting the lysis step.
3. Pulse-vortex the tube for 15 seconds and incubate for 30 minutes at +65°C.
4. During the lysis step pipette the rest of the reagents into tubes according to the Table 1.
5. Centrifuge the lysed sample at 18 000 x g for 5 minutes. Gently transfer the supernatant into a new tube. Follow the protocol starting from combining the lysed sample, Binding Buffer and Magnetic Particles as described in QuickPick™ SML Plant DNA kit insert.
6. Elute the DNA for 2 - 10 minutes or until magnetic particles are uniformly dispersed. Elution step can be done at +50°C for 5 minutes with occasionally mixing to improve DNA yield.

Table 1. Reagent volumes for Plant DNA purifications

Reagent	Reagent volume per preparation		
Sample amount			
Rape seed	1 - 2 pcs	3 - 4 pcs	5 - 6 pcs
Tomato seed	5 pcs	10 pcs	20 pcs
Lysis Buffer	37.5 µl	75 µl	150 µl
Proteinase K	2.5 µl	5 µl	10 µl
Binding Buffer	62.5 µl	125 µl	250 µl
Magnetic Particles	2.5 µl	5 µl	10 µl
Wash Buffer	3 x 125 µl	3 x 250 µl	3 x 500 µl
Elution Buffer	5 - 25 µl	10 - 50 µl	25 - 100 µl