

Protocol a) DNA purification from bone marrow samples

1. Add bone marrow sample followed by Proteinase K into a tube according to the Table 1. Mix the tube properly.
2. Add Lysis Buffer according to the table 1. Mix the tube properly by inverting the tube and pipetting up and down several times.
3. Pulse-vortex the tube for 15 seconds and incubate for 10 minutes at +56°C.
4. During the lysis step pipette the rest of the reagents into tubes according to the Table 1.
5. Follow the protocol starting from combining the lysed sample, Binding Buffer and Magnetic Particles as described in QuickPick™ SML gDNA kit insert.
6. Elute the DNA for 2 - 10 minutes or until magnetic particles are uniformly dispersed.
7. The volume of Elution buffer can be decreased or increased depending on the desired DNA concentration for the downstream application.

Table 1. Reagent volumes for genomic DNA purifications

Reagent	Reagent volume per preparation			
	25 µl	50 µl	100 µl	200 µl
Sample amount	25 µl	50 µl	100 µl	200 µl
Lysis Buffer	25 µl	50 µl	100 µl	200 µl
Proteinase K	2.5 µl	5 µl	10 µl	20 µl
Binding Buffer	62.5 µl	125 µl	250 µl	500 µl
Magnetic Particles	2 µl	4 µl	8 µl	16 µl
Wash Buffer 1	2 x 125 µl	2 x 250 µl	2 x 500 µl	2 x 750 µl
Wash Buffer 2	125 µl	250 µl	500 µl	750 µl
Elution Buffer	5 - 25 µl	10 - 50 µl	25 - 100 µl	50 – 200 µl

Protocol b) DNA purification from bone marrow samples on hematological slides

Materials required (not included with the kit)

PBS

Clean microscope slide

1. Wet the dried bone marrow sample with a drop of PBS.
2. Add 180 µl PBS into a tube.
3. Scrape the material into the tube using the edge of a clean microscopic slide and suspend the material by pipetting up and down several times.

4. Add Proteinase K and Lysis buffer into the tube according to the table 2. Mix the tube properly by inverting the tube and pipetting up and down several times.
5. Pulse-vortex the tube for 15 seconds and incubate for 10 minutes at +56°C.
6. During the lysis step pipette the rest of the reagents into tubes according to the Table 1.
7. Follow the protocol starting from combining the lysed sample, Binding Buffer and Magnetic Particles as described in QuickPick™ SML gDNA kit insert.
8. Elute the DNA for 2 - 10 minutes or until magnetic particles are uniformly dispersed.
9. The volume of Elution buffer can be decreased or increased depending on the desired DNA concentration for the downstream application.

Table 2. Reagent volumes for genomic DNA purifications

Reagent	Reagent volume per preparation
PBS	180 µl
Lysis Buffer	200 µl
Proteinase K	20 µl
Binding Buffer	500 µl
Magnetic Particles	16 µl
Wash Buffer 1	2 x 750 µl
Wash Buffer 2	750 µl
Elution Buffer	50 – 200 µl

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