



Protocol for genomic DNA purification from animal tissue

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

Note: To achieve maximum yield of DNA from a tissue specimen it is essential to mechanically disrupt the tissue prior to DNA isolation. Liquid nitrogen* or a homogenizer** which can efficiently disrupt the tissue and aids in rapid preparation of the sample homogenate, is recommended.

***Liquid nitrogen:** Take a piece of tissue and immediately disrupt it in liquid nitrogen (using mortar and pestle). For one preparation weigh 1-10 mg of the frozen pulverized tissue, and suspend it in Lysis Buffer according to the table 1.

****Homogenizer:** Into a clean microcentrifuge tube weigh the desired amount of tissue (1-10 mg). Add appropriate volume of Lysis Buffer (Table 1) and homogenize using e.g. a tissue grinder (Pellet Pestle or an equivalent device). A homogeneous suspension should be obtained within 5-10 min.

Keep the tissue homogenate on ice during homogenization step.

1. Prepare a tissue homogenate as described above.

Add Proteinase K into the same tube according to the table 1.

Note: If a RNA-free genomic DNA preparation is required, add 5 µl of a 20 mg/ml RNase A stock solution before addition of the Lysis Buffer. Mix gently and incubate for 5 minutes before proceeding with Step 4.

2. Proceed with the protocol as described in QuickPick™ SML gDNA kit insert.

Table 1. Reagent volumes for genomic DNA purifications

Reagent	Reagent volume per preparation			
	1.25 mg	2.5 mg	5 mg	10 mg
Sample amount				
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