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Protocol for DNA isolation from animal tissue with PickPen®

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 1-3 mg of the frozen pulverized tissue, and suspend it in 50 µl of TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0.)

**Homogenizer: Into a clean microcentrifuge tube weigh the desired amount of tissue (1-3 mg). Add 50 µl of TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0) and homogenize using eg. a tissue grinder (Pellet Pestle® Cordless Motor, Part No. 749540-0000) from Kimble/Kontes, Vineland, NJ, or an equivalent device). A uniform suspension should be obtained within 5-10 min.

Keep the tissue homogenate on ice at all times until you proceed with Step 3.

1. Prepare a tissue homogenate as described above.
2. Equilibrate the gDNA Proteinase K Solution to room temperature.
3. Pipet 5 µl of Proteinase K Solution into a 1.5 ml microcentrifuge tube, then add 50 µl of tissue sample homogenate from step 1. Mix well but gently.

   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.
4. Follow the QuickPick™ gDNA kit insert protocol starting with addition of the Lysis Buffer. Incubation times of 10 minutes each are recommended for the binding and elution steps.
5. Elute the sample in 50-200 µl of Elution Buffer.

Note: Occasionally, a tint of yellow color or cloudy appearance may be observed in the DNA isolated from tissue samples containing high amounts of blood. This will not affect the downstream processing such as PCR.

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