

## User-Developed Protocol:

### Isolation of genomic DNA from compact bone using the QIAamp<sup>®</sup> DNA Mini Kit

This procedure has been adapted by customers from the QIAamp<sup>®</sup> DNA Mini Protocols, and is for use with the QIAamp DNA Mini Kit. **It has not been thoroughly tested and optimized by QIAGEN.**

Please note that lysis time will vary depending on the size and density of the source material.

Please be sure to read the QIAGEN<sup>®</sup> *QIAamp DNA Mini Kit and QIAamp DNA Blood Mini Kit Handbook* and detailed Tissue Protocol carefully before beginning this procedure.

### Procedure

1. **Completely remove bone marrow and soft tissues using razor blades and/or sandpaper.**
2. **Crush the bone into small fragments. Grind to a fine powder using a metal blender half-filled with liquid nitrogen.**
3. **Transfer 5 g of the powder into sterile 50 ml polypropylene tubes and add 40 ml of 0.5 M EDTA, pH 7.5, to decalcify the sample. Agitate the tubes on a rotator at 4°C for 24 h.**
4. **Centrifuge the sample at 2000 x g for 15 min. Discard the supernatant. Repeat the decalcification process several times.**  
**Note:** Generally, decalcification takes 3–5 days. The decalcification process can be monitored by adding a saturated solution of ammonium oxalate, pH 3.0, to the decanted supernatant. If the solution remains clear, the decalcification process can be stopped.
5. **Wash the pellet with 40 ml of sterile deionized water to remove ions that have accumulated during decalcification. Centrifuge the sample for 15 min at 2000 x g and discard the supernatant. Repeat this washing procedure 3 times.**
6. **To 50 mg of pellet, add 360 µl Buffer ATL. Continue with step 2 of the Tissue Protocol in the *QIAamp DNA Mini Kit and QIAamp DNA Blood Mini Kit Handbook*.**

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN<sup>®</sup> kit handbooks and user manuals are available at [www.qiagen.com](http://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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