

## **GeneReleaser® Whole Tissue Protocol**

GeneReleaser® is a proprietary reagent which releases DNA from whole blood, cell cultures, bacterial colonies and the like. Lysis is accomplished directly in the amplification tube on a thermocycler. Typically, 1µl of specimen is lysed in a total volume of 20µl and amplification reagents are subsequently added to initiate amplification. GeneReleaser® sequesters cell lysis products which might inhibit polymerases and improves amplification yield and specificity. GeneReleaser® greatly simplifies the amplification of genomic DNA by avoiding the requirement to purify DNA. This avoids lengthy protocols and excessive sample manipulations which may introduce contamination.

### **WHOLE TISSUE HOMOGENIZATION:**

1. Cut a 1mm<sup>3</sup> thick section from the either fresh or frozen tissue that has been rinsed with sterile water to remove any surface contamination.
2. Place the section into the bottom of a 1.5 ml tube.
3. Add 25µl of 1X TE to the tube containing the sectioned tissue.
4. Mince the section of tissue by thrusting a pestle against the tissue and twisting the pestle to compress the tissue against the walls of the tube. Ten thrusts with the pestle are sufficient.
5. Place the tube containing the homogenate at 4°C as each specimen is homogenized.

### **GeneReleaser® PROCEDURE:**

1. Transfer 1µl of the tissue homogenate obtained above into a 0.5 ml standard amplification tube. NOTE: flick the tube containing the homogenate 3 times before transfer.
2. Resuspend the GeneReleaser® mixture by either vortexing 2-3 seconds or by 10 inversions.
3. Add 20 µl of the GeneReleaser® suspension to the 1µl of homogenate in the amplification tube.
4. Vortex the tube 2-3 seconds
5. Overlay the mixture with ~50µl of mineral oil.
6. Place tubes in the 96 well rack.
7. Place the rack in the center of a microwave oven.
8. Microwave on HIGH for 5-7 minutes.
9. Remove rack from microwave.
10. Transfer tubes to thermocycler preheated to 80°C and allow to equilibrate for 5 minutes.
11. Initiate amplification by the addition of 80µl of a 1.25X master mix containing all components for the amplification
12. Begin your optimized amplification. NOTE: It is very important that the very first denaturing step of the first cycle be at 94°C for 2-5 minutes depending on brand of cycler, reaction volumes etc.

**NOTES: If the amplicon is larger than 1KB a magnesium titration should be performed.**

If you have further questions, please contact us at [support@bioventures.com](mailto:support@bioventures.com). You may also contact us via fax (1-877-286-0330) or through our toll-free phone number (1-877-852-7846).