

GeneReleaser® Microwave Protocol and Evaluation Procedure

Microwave Protocol

Note: The 0.2ml tube racks provided by Perkin-Elmer for use with their 9600 and 2400 instruments are NOT microwave compatible. **THEY WILL MELT!!**

We have found that microwave treatment of specimens affords a more rapid sample preparation and facilitates the amplification of the more intractable types of specimens.

Step 1. Place 1µl of specimen with 20µl of GeneReleaser® into either a 0.5ml or 0.2ml PCR tube.

NOTE: It is extremely important not to use tubes any larger than these; as the samples will be boiled away or larger tubes will rupture!!

Step 2. Unlike the thermocycle program, vortex the tubes containing specimen and GeneReleaser® for ~10-30 seconds.

Step 3. An oil overlay is optional.

Step 4. Place closed tubes in polyethylene or polypropylene racks. Place rack in microwave oven and heat at Maximum power setting for 5-7 minutes. 5 minutes if wattage is 900 or higher, 7 minutes if wattage is 500. 4500 watt-minutes is the optimum.

Step 5. Remove rack from microwave and place tubes on preheated thermocycler at 80-90°C.

Step 6. Add PCR master mix and begin amplification cycles.

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.

If you ever have any questions regarding the use of GeneReleaser® or reaction conditions please call or fax us. If you can spare either specimens (noninfectious) or primers, we will gladly assist in developing an optimized protocol.

Microwave Evaluation

To evaluate your microwave please perform the following experiment:

Step 1. Place 40µl of DI water in the same size and type of tube as for PCR.

Overlay each tube with mineral oil

Step 2. Close the tubes, place in microwave safe rack and heat on HIGH for 5 minutes.

NOTE: If any caps pop or tubes distort in any manner, then place a separate beaker in the microwave with 150ml of ambient temperature DI water and repeat as above. The beaker of water serves as a heat ballast.

Step 3. If tubes open or distort after performing the step above, then reduce power by 10% increments and increase time by 1 minute increments repeating the step above until tubes no longer open or distort.

If a water ballast was used as above, then allow the tubes to remain in the microwave undisturbed for 2 minutes following the completion of the microwave cycles. This is to protect you from any sudden boiling of the ballast after it has been heated.

If you have further questions, please contact us at 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).