

Adding Post-Process Geode PCR Cycles

For Sapphire Chip

For Research Use Only. Not for use in diagnostic procedures.

This protocol is intended to describe how to add additional Geode PCR cycles to Sapphire Chip, which have previously been processed for **Crystal Digital PCR™**.

1. When Should This Protocol Be Used?

Always start any Crystal Digital PCR™ experiment as described in the respective Instructions for Use (IFU) and User Manuals (UM) of the naica® system.

In some instances, it may become obvious that while analysing the data with Crystal Miner software, one may notice that the addition of PCR cycles may enhance the separability of the experiment.

The procedure of adding Geode PCR cycles can be applied within the specified chip post-processing timeframes, as described in the specific Instruction For Use of the respective chip type.

Please be aware that the final experimental outcome of this procedure is much depending on the specific assay design. Stilla Technologies recommends to always validate modified PCR cycling parameters with a new set of chip consumables.

2. Material Needed To Perform This Protocol?

- Sapphire Chip(s), which have been processed for Crystal Digital PCR™ within 48 hours
- 3-color naica® system or 6-color naica® system, compatible to process Sapphire Chip consumables

3. Procedure

1. Place the Sapphire Chip in the plastic blister or in a Petri Dish containing a Precision Wipe to transfer it to the Geode instrument.
2. Ensure the Geode is prepared for the operation of Sapphire Chip.
 - a. Geode magnetic frame for Sapphire Chip for the thermal plate
 - b. No Geode lid adaptors in place
3. Place the Sapphire Chip in the Geode
4. Open the “*Sapphire Protocol Additional cycles*” program in the Protocol directory.
5. Edit the parameters if necessary
 - a. Set the number of additional PCR cycles
 - b. Set the desired temperature
6. Start the Geode program.
7. At the end of the Geode program, place the Sapphire Chip in the plastic blister or in a Petri Dish containing a Precision Wipe to transfer to the respective naica® system scanner, Prism3 or Prism6.
8. Scan the Sapphire Chip using the Prism3 or Prism6 as described in the respective User Manual.
9. Analyse the experiment with Crystal Miner software.