1. GE Illustra puReTaq™ Ready-To-Go™ PCR beads:

WHAT YOU NEED
Thermal cycler (PCR machine)
GE Illustra PCR beads[1] (dried as a single bead in tube)
Primers—1 or 2 µL of each primer
Template DNA in FTA punch or other sample
Molecular Biology grade water
Additional PCR tubes to divide the pre-mix into two

1. GE PCR beads are supplied in a sealed pouch as they are sensitive to moisture. Once a pouch is opened, any unused tubes must be stored in a desiccator containing active desiccant (silica gel—see page 39).

2. Each tube contains a single bead and is made up to a 25 µL reaction mix[2]. The pre-mix can be divided into two PCR tests using the additional tubes supplied. There is no loss of resolution.

3. Add 1 or 2 µL each of forward and reverse primers to the tube.

4. Mix the contents of the tube gently. The reaction is fully dissolved and mixed when the solution appears clear.

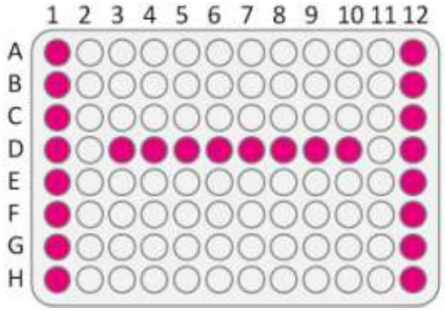
5. Load tubes onto thermal cycler and run chosen PCR program.

Notes:
[1] Composition of a GE PCR bead: Stabilisers; BSA; dNTPs; 2.5 units puReTaq DNA polymerase and reaction buffer.
[2] When a bead is reconstituted to a final volume of 25 µl, the concentration of each dNTP is 200 µM in 10 mM Tris-HCl, (pH 9.0 at room temperature), 50 mM KCl and 1.5 mM $MgCl_2$.

2. ABI SimpliAmp Thermal Cycler

PCR Protocols for the ABI thermal cyclers are found in the Instruction Manual provided and PDF versions of Instruction Manuals can be found on the Trust website: www.kirkhousetrust.org, go to:
'Resources →Research Resources → Equipment Manuals'.

Hints & Tips: For all thermal cyclers, ensure that all consumables used in the block are of the same height and are spread evenly across the block. Insert empty "dummy" tubes if necessary in each corner to spread the pressure of the heated lid evenly.



Example of the placement of PCR tubes to ensure the heated lid applies even pressure on the tube lids. Some of the tubes can be "dummy" tubes filled with just water or buffer.