InstaGene™ Matrix: Prepare DNA Templates for PCR* With No Phenol/Chloroform Extractions and No Deproteinization Steps

Prepare DNA from blood, cultured cells, or bacteria:

- Just incubate sample with InstaGene matrix at 56ºC for 15–30 min, then boil for 8 min.
- InstaGene matrix absorbs cell lysis products, producing an improved substrate for PCR amplification.

DNA Preparation From Whole Blood

Use whole blood samples that are frozen, refrigerated, or collected fresh.

1. Add 3–6 µl of whole blood to 1 ml of autoclaved double distilled water in a 1.5 ml microfuge tube. Mix by inverting the tube several times.
2. Incubate the tube at room temperature for 15–30 min.
3. Spin at 10,000–12,000 rpm for 2–3 min.
4. Carefully remove all but 20–30 µl of the supernatant. Do not disturb the pellet.
5. Add 200 µl of InstaGene matrix to the pellet and incubate at 56ºC for 15–30 min.

Note: InstaGene matrix should be mixed at moderate speed on a magnetic stirrer to maintain the matrix in suspension. The pipet tip used should have a large bore, such as on a 1,000 µl pipet tip (Bio-Rad's TBR tips, catalog #223-9350 and 223-9351).

6. Vortex at high speed for 10 sec. Place the tube in a 100ºC heating block or boiling water bath for 8 min.
7. Vortex at high speed for 10 sec. Spin at 10,000–12,000 rpm for 2–3 min.
8. Use 20 µl of the resulting supernatant per 50 µl PCR reaction. Store the remainder at -20ºC. Repeat step 7 when reusing the InstaGene DNA preparation.

Note: It is important to store the prepared sample at -20ºC when not in use.

DNA Preparation From Cultured Mammalian Cells

1. Pellet 200 µl of cells suspension from media in a microfuge tube. Spin at 10,000–12,000 rpm for 1 min and remove the supernatant.
2. Resuspend cells in 1 ml of 1x PBS and centrifuge for 1 min at 10,000–12,000 rpm.
3. Resuspend cells in autoclaved water at 20–30 cells/µl.
4. Add 20 µl of this cell suspension to 200 µl of InstaGene matrix. Incubate at 56ºC for 15–30 min.

Note: InstaGene matrix should be mixed at moderate speed on a magnetic stirrer to maintain the matrix in suspension. The pipet tip used should have a large bore, such as on a 1,000 µl pipet tip.

5. Follow the procedure for DNA preparation from whole blood, steps 6–8.

DNA Preparation From Bacteria

The protocol described below is for the preparation of genomic DNA or episomal DNA from bacteria.

1. Pick an isolated bacterial colony and resuspend it in 1 ml of autoclaved water in a microfuge tube.
2. Centrifuge for 1 min at 10,000–12,000 rpm. Remove the supernatant.
3. Follow the DNA preparation procedure for whole blood, steps 5–8.

Ordering Information

Catalog #	Description
732-6030	InstaGene Matrix, 20 ml, 100 DNA preps

* The polymerase chain reaction (PCR) process is covered by patents owned by Hoffman-LaRoche. Practice of the PCR process requires a license.

BIO-RAD

Bio-Rad Laboratories, Inc.

Life Science Group

Web site *www.bio-rad.com* ***USA*** *(800) 4BIORAD* ***Australia*** *02 9914 2800* ***Austria*** *(01)-877 89 01* ***Belgium*** *09-385 55 11* ***Brazil*** *55 21 507 6191* ***Canada*** *(905) 712-2771* ***China*** *(86-21) 63052255* ***Czech Republic*** *(420) 2-4141 0532* ***Denmark*** *45 44 52-1000* ***Finland*** *358 (0)9 804 2200* ***France*** *01 47 95 69 65* ***Germany*** *089 318 84-177* ***Hong Kong*** *852-2789-3300* ***India*** *(91-124) 6398112/113/114, 6450092/93* ***Israel*** *03 951 4127* ***Italy*** *39 02 216091* ***Japan*** *03-5811-6270* ***Korea*** *82-2-3473-4460* ***Latin America*** *305-894-5950* ***Mexico*** *52 5 534 2552 to 54* ***The Netherlands*** *0318-540666* ***New Zealand*** *64-9-4152280* ***Norway*** *47-23-38-41-30* ***Poland*** *(48) 22-8126 672* ***Portugal*** *351-21-472-7700* ***Russia*** *7 095 721 1404* ***Singapore*** *65-2729877* ***South Africa*** *00 27 11 4428508* ***Spain*** *590 5200* ***Sweden*** *46 (0)8-55 51 27 00* ***Switzerland*** *061 717-9555* ***United Kingdom*** *0800-181134*