

## EUROPE

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Kaneka Eurogentec products are sold for research or laboratory use only and are not to be administered to humans or used for medical diagnostics.

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## Technical Data Sheet

# GeneReleaser®

KA-0010-10 • KA-0010-40

[100 Assays]

[400 Assays]

### Description

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, 1 µl of specimen is lysed in a total volume of 20 µl 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.

### Product details and content

Reagent (Catalogue #)	Description
GeneReleaser® (KA-0010-10)	- 1 tube of 2 mL (ready to use)
GeneReleaser® (KA-0010-40)	- 4 tube of 2 mL (ready to use)

A thermocycle profile is provided for the use of GeneReleaser®.

A programmable thermocycler and accessory reagents and equipment for amplification are required.

### Storage conditions

Shipped at room temperature.  
Store at 4°C.  
DO NOT FREEZE.

### Protocol

#### A. Whole Blood:

1. Place 1 µl of whole blood into the bottom of each thermocycling tube for each specimen.
2. Thoroughly resuspend the contents of the GeneReleaser® tube by inverting 10- 20X.
3. Add 20 µl of the resuspended GeneReleaser® to each tube.
4. Perform the thermocycle program described below.
5. Perform the amplification reaction according to your optimized protocol.

#### B. Bacterial Colony

1. Place a single well isolated colony into the bottom of a thermocycle tube for each specimen.
2. Perform steps 2-5 as per these steps in the Whole Blood Procedure above.

#### C. Tissue Culture Procedure:

1. Place 1 µl of cells at a density of 103-108 cells/ml into the bottom of a thermocycle tube for each specimen.
2. Perform steps 2-5 as per these steps in the Whole Blood Procedure above.

#### D. Thermocycle Program:

NOTE: Reaction volumes and concentrations should be adjusted proportionally to allow for the 20 µl GeneReleaser® volume. In some instances a new magnesium titration may need to be performed to assure optimum amplification.

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[100 Assays]

[400 Assays]

We suggest the range of 1.5mM - 4.0 mM Mg in 0.5mM increments for this titration.

Following the thermocycler manufacturer's procedure and using the default transition rates between temperatures, enter and run the following program:

NOTE: When using the Perkin Elmer GeneAmp® PCR system 9600 or 2400 all times below should be reduced by 50%. Overlay the specimens with mineral oil.

Step Temperature Heating Rate

1. 65°C hold 30 sec.
2. 8°C hold 30 sec.
3. 65°C hold 90 sec.
4. 97°C hold 180 sec.
5. 8°C hold 60 sec.
6. 65°C hold 180 sec.
7. 97°C hold 60 sec.
8. 65°C hold 60 sec.
9. 80°C hold.

10. Adjust temperature as necessary.

11. Add amplification reagents without vortexing or otherwise mixing the amplification tube contents.
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.

**Performance Characteristics:**

GeneReleaser® is designed for release of genomic DNA. If low copy number DNA is being processed i.e. virally infected cells, then cellular enrichment should be performed.

For further information please contact our Customer Help Desk

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