PIKA BEADEX 36

For the rapid DNA isolation from enriched samples

Cat. No. 2035-1-1

Warning! Read the manual and the Safety Data Sheets before starting the analysis. Safety Data Sheets are available in the download area from www.pika-weihenstephan.de. All handling steps should be performed under sterile conditions. Wear appropriate protective clothing and powder-free gloves. The use of filter tips is recommended. For testing of Food and Environmental samples only.

Product description

The DNA Isolation Kit PIKA BeadEx is intended for fast DNA extraction from bacteria coming from enrichments. Bacteria can be taken from solid surfaces (e.g. colonies from membrane filters) or from liquid samples. Cell disruption is achieved mechanically without costly instruments by shaking in the presence of glass beads. The isolated DNA can be further used in diverse molecular biology analyses as PCR.

Kit content

Materials supplied are sufficient for 36 isolations.

Description	Amount	Storage*
Washing buffer A (yellow cap)	1 x 10.0 mL	4°C or room temperature
Lysis buffer A (blue cap)	1 x 10.0 mL	
Dilution buffer A	1 x 2,0 mL	

* Kit is shipped at ambient temperature

Materials required but not supplied

Material
Instruments and equipment
Benchtop microcentrifuge for 1.5 mL reaction tubes
Reaction tube mixer (Vortexer)
Pipettors
Consumables and reagents
Powder-free gloves
1.5 mL reaction tubes, safe-lock, sterile
Filter pipette tips

Procedural guidelines

1. Transfer the sample into a 1.5 mL reaction tube:
   a) Liquid samples:
   - 50 µL of a turbid, bacterial sample (previously enriched sample or spoiled product)
   - 1.0 – 1.5 mL of a clear sample (even larger sample sizes can be used)
   - 50 – 200 µL of liquid particle containing sample to reach a pellet size of app. 2 mm after centrifugation (see fig. 1)

   b) *Colonies:* single colonies as well as different colonies can be processed at the same time
   - Transfer 200 µL Washing buffer A and cell material in a 1.5 mL reaction tube. Skip steps 4. to 6.
2. Centrifuge for 3 min at 14,000 rpm (25,000 x g) or alternatively 10 min at 4,000 rpm (1,500 x g)
3. Control the pellet size. Pellet size should not exceed 2 mm in diameter (see fig. 1).
   If necessary, remove part of the pellet together with the liquid phase
4. Remove the liquid phase carefully and discard
5. Optional: Wash pellet with 200 µL Washing buffer A, resuspend pellet and repeat steps 2 and 3
6. Add 200 µL Lysis buffer A to the pellet. Caution! Take care that 50-75 µL of the transferred volume consists of sediment
7. Vortex 3 min at max. speed
8. Centrifuge again as in step 2
   The pellet contains cell walls and other particles separated from the DNA
9. Transfer 100 µL of the liquid phase containing the DNA in a new 1.5 mL reaction tube and use it for PCR. For long-term storage, freeze at -18 to –20 °C

Fig. 1: recommended pellet sizes:
Left: max. pellet bacterial size
Right: max. pellet size for particle containing samples

Dilution buffer A may be used to dilute the DNA prior to further analysis.

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