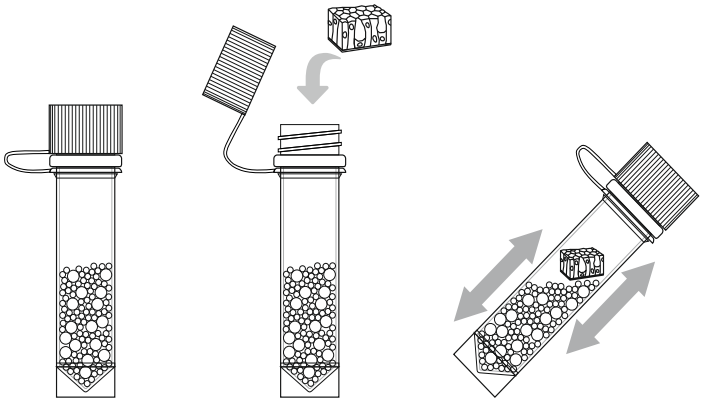
EURx® MOLECULAR BIOLOGY PRODUCTS

BeadTubeDry

Tubes containing glass spheres in two sizes for homogenization samples of diverse origin, mainly bacteria and yeasts.

Cat. no.	pcs.
E0358-01	25 preps
E0358-02	100 preps

BeadTubeDry are used to homogenize small portions of soft animal tissues, bacterial or yeast pellets, cell cultures or environmental samples in quantities corresponding to one isolation. Each Eppendorf tube contains two types of glass spheres with 0.5 mm and 1.0 mm diameters. This selection of abrasive material allows to obtain an efficient lysis of gram-positive, gram-negative bacteria and yeasts. The regular shape of beads minimizes fragmentation of DNA/RNA obtained. Fragmentation of the material is achieved in a process of shaking/vortexing of the tube with high speed. In most cases, homogenization is carried out in 350-1000 µl of a suitable lysis solution.



To reduce the volume of a foam generated at the shaking stage, antifoaming reagent **AFR01** (E0328) can be added to the lysis buffer. Add 5 µl **AFR01** per 1 ml of lysis solution [0.5% (v / v)] and mix well. **AFR01** reagent can be used with the following EURx lysis buffers: **Lyse All**, **LG**, **Lyse T**, **Lyse C**, **Lyse S**, **Lyse BN**, **Lyse BG**, **Extraction EN** and with universal solution for DNA isolation **GeDI**. The lysis buffer with **AFR01** added can be stored for 3 months. The mixture should be shaken well before re-use.

Protocol:

(1) Add 350-1000 µl of the appropriate lysis buffer (with previously added reagent **AFR01**) to the **BeadTubeDry**. Add an appropriate portion of the sample. Place the tube in the vortex and shake for 10 min at maximum speed. For tube shaking, specialized bead beater/cell disrupter instruments (e.g. FastPrep, Precel-lys, Disruptor Genie, etc.) can be used to achieve greater efficiency in DNA isolation. The use of the device involves the need to optimize the shaking time (shorten the time) to avoid fragmentation of the DNA. The grinding time depends on the type of sample and the expected effects.

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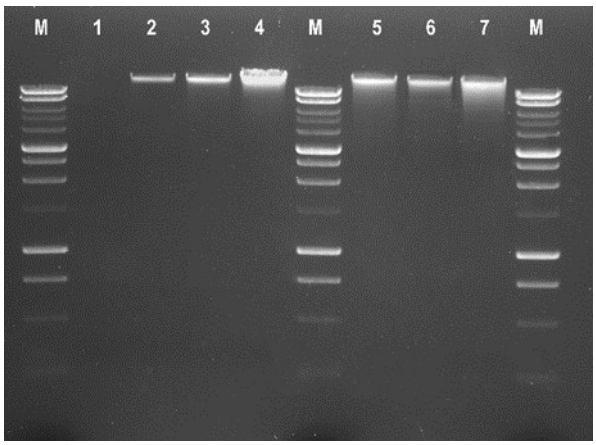
(2)After homogenization step, in case of high foaming, the sample should be centrifuged at 8 000 x g for 30 sec. Transfer **appropriate volume of supernatant** depending on the protocol used.

(3) Continue the desired protocol.

BeadTubeDry can be used at the sample homogenization stage with the following EURx GeneMatrix DNA/RNA purification kits: **Universal RNA** (E3598), **Universal RNA/miRNA** (E3599), **RNA/DNA Extracol** (E3750), **Universal DNA/RNA/ Protein** (E3597), **Tissue DNA** (E3550), **Tissue&Bacterial DNA** (E3551), **Bacterial&Yeast Genomic DNA** (E3580), **Plant&Fungi DNA** (E3595), **Food-Extract DNA** (E3525)) and with universal reagent for genomic DNA isolation **GeDI** (E3760, E3765).

Storage. BeadTubeDry should be stored at room temperature.

Comparison of efficiency of various methods of sample homogenization during DNA isolation process.



Gram-positive bacteria *Streptomyces caespitosus* (1-4), Universal kit for DNA isolation with GeDI solution (E3765):

1. Without homogenization.
2. Tissue Grinding Tool, Zirconia/Silica spheres (E0359a).
3. Tissue Grinding Tool, Garnet (E0359b).
4. BeadTubeDry.

Pig liver (5-7), Tissue DNA Kit (E3550):

5. Tissue Grinding Tool, Zirconia/Silica spheres (E0359a).
6. Tissue Grinding Tool, Garnet (E0359b).
7. BeadTubeDry.

M - Perfect Plus™ 1 kb DNA lader (EURx).