

Cobo Technologies

CoboXtract™ – Quick DNA Extraction Solution 1.0, 50 ml

Datasheet

Cat. No.: C20101

Kit Contents

Name	Cat. No.	Size	Extractions
CoboXtract™ – Quick DNA Extraction Solution 1.0	C20101	50 ml	100-1000

Key Features

- Quick extraction of PCR-ready DNA from most cell/tissue types.
- Inexpensive, One-tube protocol for easy handling.
- Used for efficient extraction of DNA from:
 - a. Tissue-culture cells
 - b. Buccal cells
 - c. Zebrafish organs and scales
 - d. Mouse tail snips
 - e. Hair follicles and Quill-end cells of feathers.
- Fragment Analysis Grade (proven DNA extraction solution for fragment analysis applications, like the innovative IDAA™ method).
- PCR-Ready DNA within 6-8 minutes.
- No use of spin-columns or centrifugation.
- Ideal for high-throughput setup.
- Non-toxic solution.

Product Info

CoboXtract™ - Quick DNA Extraction Solution 1.0 provides a fast, simple, and inexpensive method for preparing genomic DNA for PCR amplification - all without the use of toxic chemicals or spin columns.

DNA extraction requires only heat treatment to lyse the cellular or tissue material, release the DNA, and degrade compounds inhibitory to amplification. Following heat treatment, the sample DNA is ready for PCR.

The procedure is easily scaled to process hundreds of samples in multiwell plates, using robotic automation systems.

CoboXtract can be used to extract DNA from hair follicles, quill-end cells of feathers, tissue-culture cells, buccal cells, zebrafish organs and scales, mouse tail snips, and more.

The extracted DNA is suitable for PCR-based analysis, such as: genomic, transgenic, or viral DNA screening in animals; genetic or environmental research and screening in humans and other organisms; and CRISPR/Cas9 applications (IDAA™, T7E1, Surveyor).

CoboXtract is provided in a 50 mL volume, sufficient for 100-1000 extractions.

Research Use Only.

Recommended Storage and Stability

Store at -20°C in a freezer without a defrost cycle. Recommend to aliquot the 50 ml in 10x5ml tubes to minimize freeze/thaw cycles of the working solution. Thawed CoboXtract™ can be stored at 4°C for 1 month.

CoboXtract™ is function-tested by assaying for the production of a PCR product from a human X chromosomal marker, using a buccal cell DNA preparation as template.

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Protocols

1. Label the appropriate number of tubes containing 0.5 mL* of CoboXtract Solution.
2. Place one sample in each tube, for example:
 - a. 10^3 - 10^4 counted cells
 - b. a 0.5–1 cm region of a single plucked human hair with follicle
 - c. a 0.5–1 cm section of a mouse tail snip, finely diced using a fresh blade
 - d. a 0.5-1 cm zebrafish fin-tip
 - e. one single e. coli colony picked from a plate
 - f. a 0.5–1 cm quill-end of a breast feather that was plucked and stored at 4°C
3. Mix by vortexing for 15 seconds.
4. Transfer the tube to a heat block at 65°C and incubate for 6 minutes (15 minutes for fingernails).
5. Mix by vortexing for 15 seconds.
6. Transfer the tube to a heat block at 98°C and incubate for 2 minutes.
7. Store the DNA at –20°C for up to 1 week, or at –70°C for longer periods.
8. Use 5 µL or less of the extracted DNA for each PCR amplification.

*For some applications it will be possible to use down to 50 µl CoboXtract solution per sample.

Troubleshooting

If the PCR is unsuccessful using undiluted extract, try using a 1:10 dilution of the extract as template. While it may be counterintuitive to use less starting DNA material, better results are sometimes achieved by reducing the amount of potential PCR inhibitors in the reaction.