A&A BIOTECHNOLOGY
innovating life science

Manual

ExToPCR™

Fast, enzymatic extraction of DNA from various samples.
The DNA extract can be used for standard PCR or real-time PCR.

catalog #	size
1032-100	100 reactions
1032-500	500 reactions

For research use only.

Guarantee

A&A Biotechnology provides guarantee on this product.
The company does not guarantee correct performance of this kit in the event of:

- not adhering to the supplied protocol
- use of not recommended equipment or materials
- use of other reagents than recommended or which are not a component of the product
- use of expired or improperly stored product or its components

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Advantages

- Fast, 15 minute procedure.
- DNA extraction is performed in a single-tube, without the need for multiple washing steps or centrifugation.

Specification

form	buffer-based DNA extraction
sample type	• blood • FFPE tissue • swabs • hair follicle • animal tissue • insect • feathers

Description

Fast lysis procedure allows for efficient extraction of DNA in an amount required for PCR or real-time PCR reactions. Thermostable **XTP enzyme** and dedicated **XTP buffer** ensures optimal extraction efficiency and inactivation of cellular nucleases. In addition, the extraction buffer does not contain harmful and irritating substances.

DNA extracted with **ExToPCR™** can be used with any standard PCR reagents. However, for best results we recommend following PCR mixes:

Standard PCR

- **PCR Mix Plus Green** - 2005-100Z, 2005-1000Z
- **PCR Mix Plus Red** - 2005-100P, 2005-1000P
- **PCR Mix Plus Clear** - 2005-100C, 2005-1000C
- **PCR Mix Plus HGC** - 2005-100G, 2005-1000G

Real-time PCR

- **RT PCR Mix EvaGreen** - 2008-100G, 2008-1000G
- **RT PCR Mix Probe** - 2008-200P, 2008-2000P
- **RT PCR Mix Sybr** - 2008-100, 2008-1000

Hot Start real-time PCR

- **RT HS-PCR Mix Probe** - 2017-200P, 2017-2000P
- **RT HS-PCR Mix Sybr** - 2017-100HS, 2017-1000HS
- **qPCR-HS Mix EvaGreen** - 2008HS-100G, 2008HS-1000G
- **qPCR-HS Mix Probe** - 2008HS-100P, 2008HS-1000P
- **qPCR-HS Mix Sybr** - 2008HS-100, 2008HS-1000

Contents

component	1032-100	1032-500	storage
XTP buffer	10 ml	5 x 10 ml	-20 °C
XTP enzyme	500 µl	2 x 1.3 ml	-20 °C

Additional equipment and reagents

Necessary

- 0.2 ml PCR tubes
- Thermoblock, thermocycler or water bath

Optional

- TE buffer or Tris-HCl pH 8.0
- 1.5 ml Eppendorf tubes

Sample preparation

sample type	preparation
Blood	1. Add to 0.2 ml tube: ○ **5-10 µl** of fresh or EDTA blood ○ **85 µl** of **XTP buffer** ○ **5 µl** of **XTP enzyme** 2. Follow the extraction protocol.
FFPE tissue	1. Trim all excess wax from FFPE tissue sample 2. Add to 0.2 ml tube: ○ **1 mm³** or **1–2 mm²** fragment of **10 µm** section FFPE tissue sample ○ **85 µl** of **XTP buffer** ○ **5 µl** of **XTP enzyme** 3. Follow the extraction protocol.
Swabs	1. Place cut off swab in 1.5 ml tube and add: ○ **300 µl** of 0.5X **XTP buffer** (diluted in water) ○ **5 µl** of **XTP enzyme** 2. Follow the extraction protocol.

Hair follicle	1. Add to 0.2 ml tube: ○ **1-10** individual follicles ○ **85 µl** of **XTP buffer** ○ **5 µl** of **XTP enzyme** 2. Follow the extraction protocol.
Animal tissue	1. Add to 0.2 ml tube: ○ **2 mm³** tissue fragment ○ **85 µl** of **XTP buffer** ○ **5 µl** of **XTP enzyme** 2. Follow the extraction protocol.
Insects	1. Place the insect in a 1.5 ml tube 2. Add **XTP buffer** to immerse the entire insect 3. Crush insect with a pipette tip or other sterile tool 4. Add **5 µl** of **XTP enzyme** 5. Follow the extraction protocol.
Feathers	1. Place **2-5 mm** quill fragment in a 0.2 ml tube and add: ○ **100 µl** of **XTP buffer** ○ **20 µl** of **XTP enzyme** 2. Follow the extraction protocol.

Extraction protocol

1. Close the tube with the sample.
2. Incubate in a waterbath, thermoblock or thermocycler for **10 min** at **50 °C.**
3. Incubate in a waterbath, thermoblock or thermocycler for **5 min** at **95 °C.**
4. Keep the sample at **room temp.** to cool down.

   Note: If the sample fragment does not dissolve completely do not remove it from the tube. Despite the presence of a sample fragment, the DNA present in the extract is safe.
5. Follow up with PCR or store DNA extract at 4 °C for up to 1 month.

Troubleshooting

Thick lysate after DNA extraction

If the lysate is thick or there is a problem with pipetting centrifuge it briefly and use supernatant in PCR. Alternatively dilute lysate 1:5 – 10 with TE buffer or Tris-HCl pH 8.0.

PCR inhibition

In case of non-specific or lack of PCR product, dilute the lysate 1:5 – 10 with TE buffer or Tris-HCl pH 8.0.

Safety information

DANGER

XTP enzyme

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
P261 Avoid breathing dust.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses,
if present and easy to do. Continue rinsing.
P342+P311 If experiencing respiratory symptoms call a Poison Center or doctor / physician.

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version 2024-1