High-Q™ Automated 16-Magnetic Tissue DNA Purification Kit

Ordering info

TBK0330-P. 96 reactions (6 prefilled plates)

TBK0331-P. 160 reactions (10 prefilled plates)

TBK0332-P. 320 reactions (20 prefilled plates)

TBK0333-P. 480 reactions (30 prefilled plates)

Description

High-Q™ Automated 16-Magnetic Tissue Genomic DNA Purification Kit is a new generation of nucleic acid purification system intended for automated purification. It is based on Tiaris-Mag™ Magnetic beads, a homogenous silica-coated paramagnetic beads for purification of nucleic acids combined with a powerful step of lysis using an optimized lysis buffers that contain large amounts of detergents and reducing agents and proteinase K. Released nucleic acids are bound to the surface of Tiaris-Mag™ Magnetic beads in the presence of a chaotropic salt. Nucleic acid bound to the beads is then efficiently washed and eluted using a magnetic separation device, removing contaminants.

Features

- Medium throughput.
- Quick and convenient DNA extraction from different samples.
- Yield between 5-100 µg de gDNA.
- Highest DNA quality for all downstream applications.
- Validated with different tissues: ear cartilage, tail, liver, kidney, etc.

Applications

- Standard and quantitative PCR
- Genotyping
- Sequencing

Kit Components

Components	TBK0330-P	TBK0331-P	TBK0332-P	TBK0333-P
Reactions	96	160	320	480
Proteinase K	4 x 20 mg	150 mg	2x 150 mg	2x 200 mg
PK Resuspension Buffer	3 x 1.5 mL	10 mL	20 mL	25 mL
Tissue-1 Buffer	50 mL	90 mL	170 mL	250 mL

Order Info Kit Components: Proteinase K (TBZ0306) | PK Resuspension Buffer (TBB0546) | Tissue-1 Buffer (TBB0579)

Before its use

Proteinase K Solution: Add **PK Resuspension Buffer** to the **Proteinase K powder** to obtain a 20 mg/mL solution. For long term storage, aliquot the solution and store -20 °C.

Storage

Store Proteinase K at -20°C.

Store Prefilled plates at 4°C

Store all other components at 25 °C.

Robotic Instrument

Use 8-tip combs robotic platforms such as Ideal 32, Bioer GenePure Pro-32, Biobase BNP32 system, RoboPrep® 32 or equivalent systems.

PROTOCOL

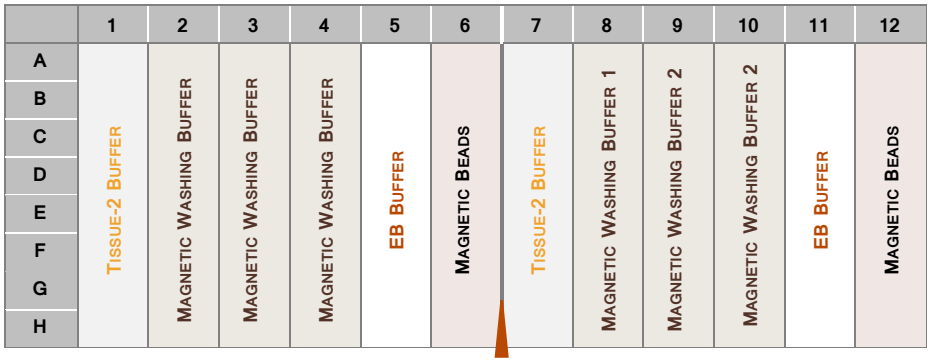
I. Sample Preparation

1. Grind up to 25 mg of tissue material in liquid nitrogen using a mortar and a pestle. With a freeze spatula, collect the powder into a 1.5 mL tube. Commercially available equipment for homogenization also can be used.
2. Add **500 µL Tissue-1 Buffer** and mix by vortex briefly.
3. Add **40 µL Proteinase K (20 mg/mL)**. Mix well.
4. Incubate at 65°C until the tissue is completely lysed. Lysis is usually complete in 1-3 h. Some samples as rodent tail and ears should be lysed overnight without affect the procedure results. Mix 2-3 times by inversion during incubation.
5. *[Optional] Add* **2 µL RNase-A 50 µg/ µL** *(not supplied) and incubate for 5 minutes at room temperature.*

   It is not a concern RNA content in gDNA purified from tissues that contain low level of RNA but transcriptionally active tissues (liver, kidney, etc.) contain high level of RNA and should be necessary include this step. Also, if RNA-free genomic DNA is required.
6. Centrifuge at 13,000 g for 5 minutes. Transfer the supernatant to the prefilled plate.

II. Automatized Nucleic Acid Purification from Tissue Sample

96-deep well plates are provided. Each plate allows the isolation of 16 samples. Two plates can be run in parallel.



1. Put the 96-well plate at room temperature.
2. Tap down the plate softly.
3. Take off the aluminum foil.
4. Check that plate is properly oriented to dispense samples, that is, that A1 well is at left upper corner and **add 450 µL of samples** to wells in the columns 1 and 7.
5. Plug 8-strip comb into the rack for tip insertion in the instrument (*see manual of instrument for details*).

6. Put 96-well plate into the instrument with A1 well at left upper corner.

7. Set up the instrument using the following program (*see manual of instrument for details*), with heating at 60°C in the elution step (*in bold*):

Step	01	02	03	04	05	06	07
Well/ Hole	6	1	2	3	4	5	6
Name	Beads	Bind	Wash I	Wash II	Wash III	Elute	Beads
Wait Time*	0:00	0:00	0:00	0:00	0:00	2:00	0:00
Mix Time*	0:30	5:00	1:00	1:00	1:00	5:00	0:10
Mag Time*	0:30	1:00	0:30	0:30	0:30	1:30	0:00
Temperature						60°C	
Volume (µL)	200	900	600	600	600	150	200
Mixing Method	Fast	Slow	Medium	Fast	Fast	Medium	Fast
Collection Method	Strong	Strong	Strong	Strong	Strong	Strong	Normal

* *Minutes: seconds*

8. Once the program has finished, recover eluted nucleic acid from each well on columns 5 and 11. Store DNA at -20°C.

9. Remove the plugs and discard them and used plates according your local safety regulations.