NEUROMICS

Tissue and Cell Genomic DNA extraction and purification magnetic beads kit **Data Sheet**

Catalog Number:	EP10011	**Size:**	100T

Kit Components included:

- Si-Mag magnetic beads – 20 ml
- Tissue-Cell Lysis Solution – 40 ml
- Wash solution – 60 ml
- Elution Buffer – 10 ml

Materials needed but not provided with the kit:

- 80% Ethanol
- Isopropanol
- Si-Mag Magnet (sold separately)

Applications: This kit is suitable for extraction and purification of genomic DNA from various tissues and cultured cells.

Storage: Magnetic beads should be stored at 2-8°C, but other kit reagents need to be stored at room temperature. Avoid repeated freeze-thaw cycles.

Introduction

This kit is suitable for extraction and purification of genomic DNA from various tissues and cultured cells. In the unique Tissue-Cell Lysis solution, genomic DNA can be efficiently extracted and then purified by the magnetic beads, yielding high pure genomic DNA with a ratio of OD260 / 280 between 1.75 to 1.85. The recovered genomic DNA size can be up to 60 kb. The purified genomic DNA is suitable for applications of PCR, Southern blot and sequencing, etc.

The kit will work with a 48 well round bottom plates if a special magnetic frame is used.

The kit can also be used with a variety of automatic nucleic acid extraction instruments or workstations.

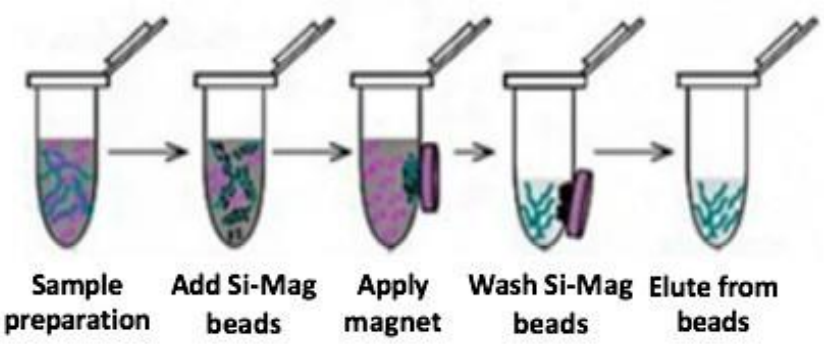
Precautions

1. Avoid freeze/thaw cycles and centrifugation which could damage the beads.
2. Bring frozen samples to room temperature before extraction
3. Vortex samples for about 10 seconds before adding mgnetic beads
4. Vortex beads and mix them well with DNA to ensure best performance
5. Elute DNA from the beads completely.

Neuromics Antibodies • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com

NEUROMICS

Principle of Assay:



Procedure for purification of DNA from Cell/Tissue

1. **Preparation of sample.**
2. **Tissue** (see table below) frozen in liquid nitrogen should be grinded and transferred to a clean Eppendorf tube. Add **400 ul** Tissue-Cell lysis solution, Vortex for 1-3 min. **Cells are** washed with PBS **twice** in a clean Eppendorf tube. Discard PBS and add **400 ul** Tissue-Cell lysis solution and Vortex for 1-3 min.
3. **Incubate** at 65°C for 15 min. vortexing the tube once after every 5 min. To remove RNA, add 5 ul of RNase A (100mg/ml).
4. **Add 200 ul** of magnetic beads into the tube.
5. **Add 300 ul** of isopropanol into the tube.
6. **Mix** well and incubate the tube at RT for 2 min. Put the tube onto the Si-Mag magnet rack for 60 seconds. Make sure the beads are collected at the bottom of the tube.
7. **Remove** supernatant by holding the magnet rack upside down or by pipetting.
8. **Wash** the beads with **600µL** of wash solution. Vortex the tube to mix well and then repeat Step 6 above.
9. **Wash** the beads with **600 ul** of 80% ethanol **twice** and repeat Step 6 above**.**
10. **Dry** the beads at 55°C for 3-4 min leaving the tube open. **Do not over-dry the beads.**
11. **Elute** DNA from beads with **50-200 ul** of elution buffer, incubate at 65°C for 5 min and then vortex at full speed for 1 min.
12. **Remove beads** using magnet rack, pipette DNA out and transfer to a clean tube.
13. **Store** purified DNA at -20°C for long-term storage.

Neuromics Antibodies • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com

NEUROMICS

Example of samples and typical yield (Information only):

Sample			Weight (mg)	DNA Yield (µg)
Cell			100 to $1x10^7$	0.1-50
Tissue	Mouse/ rat/ Mammals	Brain	35	20-30
		Heart	35	20-30
		Liver	35	30-50
		Spleen	35	50-70
		Kidney	35	30-50
		Lung	35	50-70
		Muscle	55	5-15
		Hair	5-50 (pieces)	0.1-3
	Other	Fish	55	5-15
		Shrimp	55	5-15
		Shelf-fish	55	30-60

FOR RESEARCH USE ONLY

Neuromics Antibodies • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com