

Cat.No. GDR100 **Size:**100ml/200ml **Store at** 4 °C

Description

Genomic DNA reagent, is a DNA isolation reagent containing guanidine and a detergent mixture. It is a complete and ready to use reagent for the isolation of genomic DNA from various biological sources. During the isolation, a biological sample is lysed (or homogenized) in Genomic DNA reagent and the genomic DNA is precipitated from the lysate with ethanol. Following an ethanol wash, DNA is solubilized in water or 8 mM NaOH. The procedure can be completed in 10 - 30 minutes with a genomic DNA recovery of 70-100%. The isolated DNA can be used, without additional purification, for Southern analysis, dot blot hybridization, molecular cloning, PCR and other molecular biology and biotechnology applications.

STABILITY:

Genomic DNA reagent is stable at room temperature for at least two years after the date of purchase.

HANDLING PRECAUTIONS:

It contains irritants. Handle with care, avoid contact with skin, use eye protection.

Protocol

1. Add 1 ml of DNAzol per 25 - 50 mg tissue, 10⁷ cells or 0.1 ml liquid sample to lyse the cells by homogenizer, inversion or repeated pipetting.
2. Centrifuge 10,000 x g, 10 minutes at 4-25°C. Transfer the resulting viscous supernatant to a fresh tube.
3. Add 0.5 ml of 100% ethanol per 1 ml of lysate by inverting tubes 5-8 times and store at room temperature for 1-3 minutes. Remove the DNA precipitate by spooling with a pipette tip. Swirl the DNA onto the tip and attach it to the tube wall near the top of the tube by gently sliding the DNA off the tip. Alternatively, transfer the DNA to a clean tube. Store the tubes upright for about 1 minute and remove from the bottom of the tubes the remaining lysate/homogenate.
4. Wash with 1 ml 75% of ethanol twice. At each wash, suspend the DNA in ethanol by inverting the tubes 3 - 6 times. Store the tubes vertically for 0.5 - 1 minute to allow the DNA to settle to the bottom of the tubes and remove ethanol by pipetting or decanting.
5. Dissolve DNA with adequate amount of 8 mM NaOH or water.

REFERENCES

Chomczynski P., Mackey K., Drews R. and Wilfinger W. 1997. DNAzol: A reagent for the rapid isolation of genomic DNA. *BioTechniques*, 22, 550-553.

Ausubel F., Brent R., Kingston R., Moore D., Seidman J. and Struhl K. 1990. *Current Protocols in Molecular Biology*, 2, A.1.5., John Wiley & Sons, Inc. New York, NY.

Mackey K., Williams P., Seim S. and Chomczynski P. 1996. The use of DNAzol for the rapid isolation of genomic DNA from whole blood. *Biomedical Products Supplement*, 13-15.

Liska V. and Ruprecht R. 1999. Isolation of high-molecular weight genomic DNA from intact biohazardous mammalian tissues. *Biotechniques*, 26, 62-66.

Chomczynski P., Wilfinger W., Mackey K. 1998. Isolation of Genomic DNA from Human, Animal, and Plant Samples with DNAzol Reagents. *Biotechnology International*, 185-188.

FOR RESEARCH USE ONLY AND NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE