Data sheet

Tissue Genomic DNA Purification Kit

Cat. No: AN0210 (50 reactions)
Cat. No: AN0211 (100 reactions)

Description

Tissue Genomic DNA Purification Kit offers a rapid and convenient method for purification of total DNA from a variety of tissue. The kit is based in DNA ability to bind silica in the presence of high concentrations of chaotropic salts. Eluted purified DNA is suitable and ready-to-use for PCR, real-time PCR, Southern Blotting and RFLP.

Features

- **High yields**: up tp 50µg; depends on type of sample.
- **Ready to use** DNA.
- **Just a few minutes** procedure (about 60 min).
- **Mini format**

Applications

All molecular biology applications, such as: RT-PCR, Southern blotting, RFLP, etc.

Quality Certifications

Total DNA is isolated from a 30 mg thorax muscle tissue sample. Purified DNA is quantified using a spectrophotometer with a typical yield of more than 10µg of genomic DNA and a A260nm/A280nm ratio of 1.8-2.0. Quality is further checked by agarose gel electrophoresis.

Kit Components	(Reactions)	
Item	50	100
Buffer BLY1	15 ml	30 ml
Buffer BLY2	15 ml	30 ml
Wash Buffer 1 *(WB1)	22 ml	44 ml
Wash Buffer 2 * (WB2)	10 ml	20 ml
Elution Buffer (EB)	30 ml	30 ml
Proteinase K **	11mg	2 x 11mg
RNAse A (100mg/ml)***	0.55 ml	0.55 ml
DNA minispin column	50	100
Collection tube (2mL)	100	200
1.5 ml microtube	50	100
Micropestle	50	100

Note

*Add the volume ethanol (96%-100%) specified [Not included] to WB1 and WB2 Buffer prior to initial use (see bottle label for volume). After ethanol has been added, mark the bottle to indicate that this step has been completed.

**Dissolve Proteinase K in water to obtain a 10 mg/mL stock solution. The Proteinase K solution can be stored for several days at 2–8 °C. For longer-term storage, the unused portion of the solution may be stored in aliquots at –20 °C until needed.

Kit Storage:

The kit is shipped at ambient temperature. Upon arrival, store Proteinase K at 4ºC and RNAse A (10mg/ml) should be stored at -20ºC. All other kit components can be stored at room temperature. The kit components are stable for 1 year, if stored properly.

Please wear gloves when using this product. Avoid all skin contact with kit reagents. In case of contact, wash thoroughly with water.

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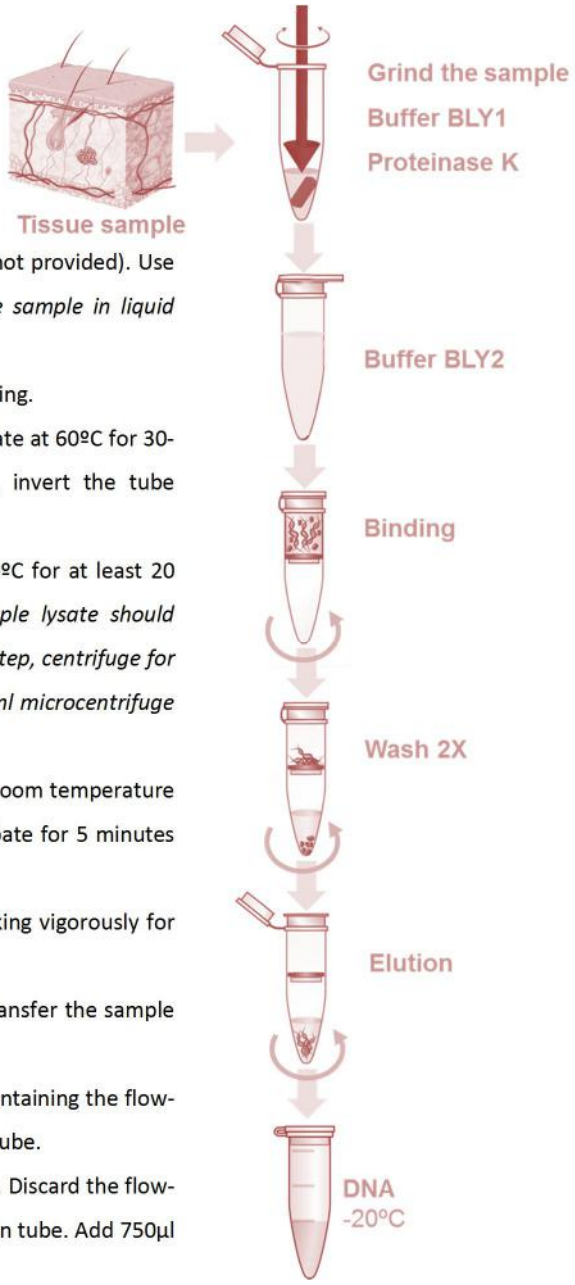
DETAILED PROTOCOL



1. Cut up to 30mg of animal and transfer to a 1.5-ml microcentrifuge tube (not provided). Use the micropestle to grind the material to pulp. *You can grind the tissue sample in liquid nitrogen.*
2. Add 200µl of Buffer BLY1 and continue to homogenize the sample by grinding.
3. Add 20µl of Proteinase K (10mg/ml), mix by shaking vigorously, and incubate at 60ºC for 30-60 minutes (Until the tissue is lysed completely). During incubation, invert the tube regularly.
4. Add 200µl of Buffer BLY2, mix by shaking vigorously, and incubate at 60ºC for at least 20 minutes. During incubation, invert the tube regularly. (*Note that sample lysate should become clear. If there is still insoluble material present following the lysis step, centrifuge for 2 minutes at 14000g-16000g and transfer the supernatant to a new 1.5-ml microcentrifuge tube*).
5. [Optional step; If RNA-free DNA is required] Allow the mixture to cool to room temperature and add 4µl of RNAse A (100mg/ml), mix by shaking vigorously and incubate for 5 minutes at room temperature.
6. Add 200µl of absolute ethanol to the lysate and mix immediately by shaking vigorously for 10 seconds. In case precipitate appears, break it up by pipetting.
7. Place the genomic DNA mini spin column in a 2-ml collection tube and transfer the sample mixture (including any precipitate if present) to the column.
8. Centrifuge at 14000g-16000g for 2 minutes. Discard the collection tube containing the flow-through and place the genomic DNA mini spin column in a new collection tube.
9. Add 500µl of Buffer WB1 and centrifuge at 14000g-16000g for 30 seconds. Discard the flow-through and place the genomic DNA mini spin column back in the collection tube. Add 750µl of Buffer WB2 and centrifuge at 14000g-16000g for 1 minute.
10. Discard the flow-through and place the genomic DNA mini spin column back in the collection tube and centrifuge for another 3 minutes at 14000g-16000g to dry the matrix of the column.
11. Transfer the spin column to a new 1.5-ml microcentrifuge tube and pipet 100µl preheated Elution Buffer directly to the centre of the spin column without touching the membrane. Incubate at room temperature 5 minutes.

    Notes: *Instead of Elution Buffer, DNA can also be eluted with TE or water; pH should be 8.0-8.5. Standard elution volume is 100µl. To increase concentration elute with 30-50µl. To increase yield, elute with 200µl.*
12. Centrifuge for 1 minute at 14000g-16000g to elute purified genomic DNA. Discard the spin column and use DNA immediately or store at -20ºC.

For Research Use Only. Please refer to **www.canvaxbiotech.com** for Material Safety Data Sheet of the product.