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G2P Animal Tissue DNA Purification Kit

(Solution Based: DNA Extraction & Purification)

Cat# ☐ **PUR20-50** ☐ **PUR20-250** ☐ **PUR20-50-S**
Pack Size: ☐ **50 Preps ,** ☐ **250 Preps,** ☐ **5 Preps**
Storage: Room Temperature*

Introduction:

The G2P Animal tissue DNA Purification Kit is a solution used to extract and purify DNA from animal tissue samples. This solution typically contains a series of reagents and protocols that are used to separate DNA from other cellular components, such as proteins and lipids. The isolation process typically involves homogenizing the tissue to release DNA, followed by a series of centrifugation and precipitation steps to purify the DNA. The isolated DNA can then be used for downstream applications, such as PCR, sequencing, or genetic analysis.

Kit Content * Store at 4°C

S.No	Components	PUR20-50	PUR20-250	PUR20-50-S
1	ATD	38mL	190mL	3.8mL
2	Proteinase K(10mg/mL)*	500 µL	2.5mL	50 µL
3	RNase A(10mg/mL)*	500 µL	2.5mL	50 µL
4	Buffer E (Elution Buffer)	5mL	25mL	500 µL

Reagents required but Not Provided

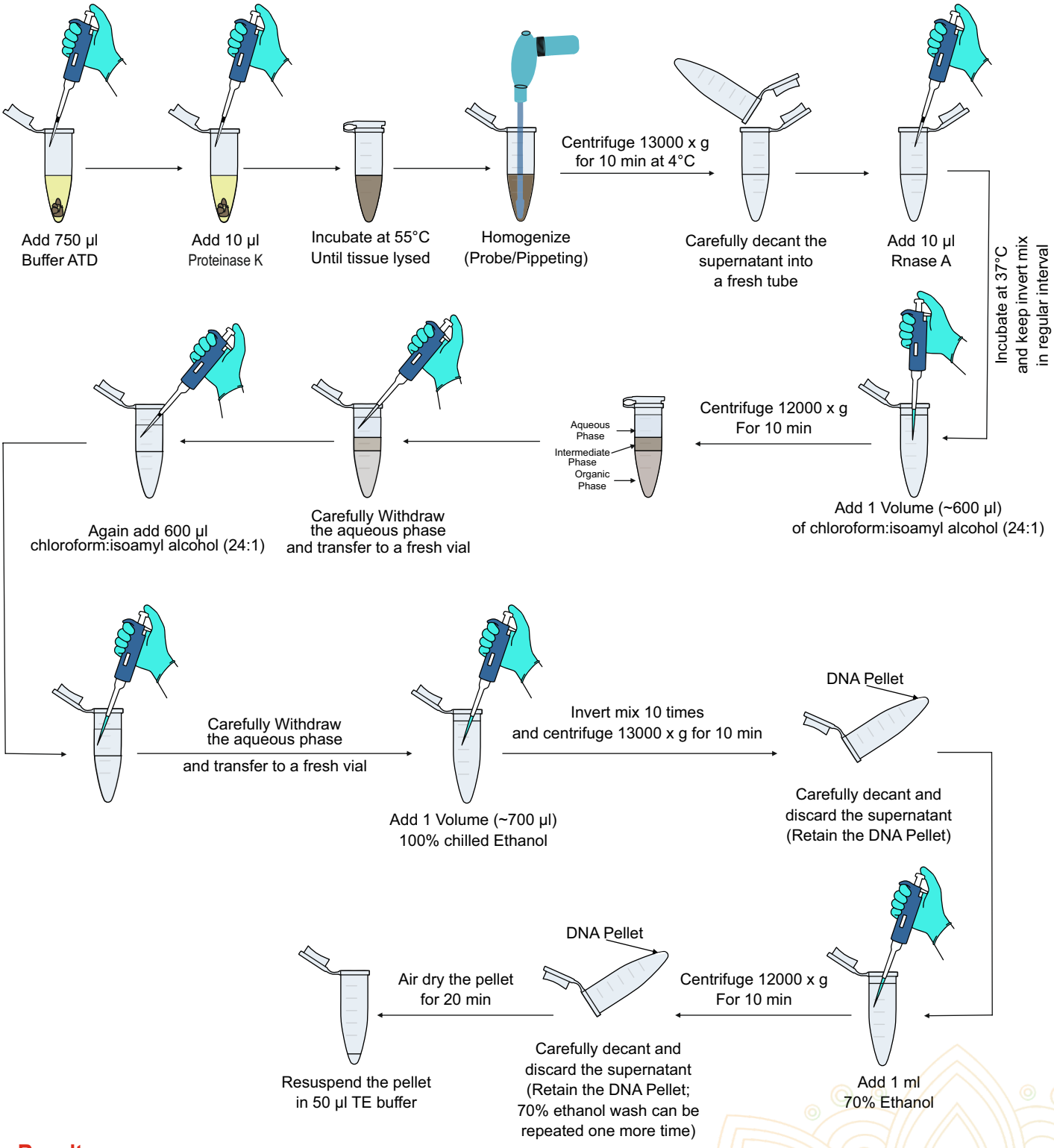
70% Ethanol/Isopropanol
100% Ethanol/Isopropanol (Molecular Biology Grade)
Plastic Pestle/Tissue Lyser: For Mechanical lysis of the animal tissue
Chloroform:Isoamyl Alcohol (24:1)

Procedure

1. Take approximately 20mg of animal tissue (such as spleen, liver, muscles, heart, kidney, pancreas, or brain) and place it in a 1.5ml microcentrifuge tube
2. Add 750 µl of Buffer ATD, 10 µl of proteinase K, and mix by vortexing. Incubate at 55°C until the tissue is completely lysed, vortexing occasionally during incubation. Vortex for 15 seconds directly before proceeding to step 3
3. Homogenize the tissue thoroughly using a plastic pestle or tissue lyser (not included in the kit)
4. Centrifuge at 13,000 x g for 10 min at 4°C
5. Transfer the upper supernatant into a fresh 1.5ml microcentrifuge tube and add 10 µl RNase A. Invert and mix, then incubate at 37°C for 30 min
6. Add equal volume (~700 µl) of Chloroform:Isoamyl alcohol (24:1) and invert mix
7. Centrifuge at 12000 x g for 10 min at 4°C
8. Transfer the upper aqueous layer into a fresh 1.5ml microcentrifuge tube
9. Repeat step 6-8 once again
10. Add 0.7 volume (~500 µl) of 100% Ethanol or Isopropanol, invert and mix
11. Centrifuge at 12000 x g for 10 min at 4°C
12. Discard the supernatant carefully without disturbing the DNA pellet
13. Add 1 ml of 70% Ethanol or Isopropanol and centrifuge at 12,000 x g for 10 min at room temperature. Discard the supernatant carefully without disturbing the DNA pellet.
14. Discard the supernatant carefully without disturbing the DNA pellet.
15. Repeat steps 13,14 (Optional)
16. Air Dry the pellet at room temperature.
17. Resuspend the pellet in the 30-50µl elution buffer.

Graphical Protocol

PUR-20



Result

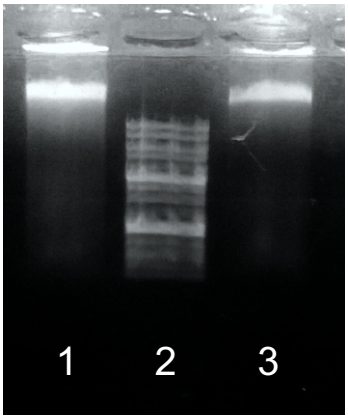


Fig: DNA isolated from Lane 1; Chicken liver and Lane 3; Chicken brain and loaded on 0.8% Agarose gel and stained with GreenR dye (PCRD10).