Video Article

Isolation of Genomic DNA from Mouse Tails

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Abstract

Video Link

The video component of this article can be found at https://www.jove.com/video/246/

Protocol

1. Cut tail pieces (3mm) and mark ears.
2. Add 720 ml STE and 30 ml Proteinase K (10 mg/ml stock).
3. Incubate at 55°C on heating block and vortex every hour for 3 hours at top speed for 10 seconds.
4. Inactivate proteinase K at 70°C for 5 minutes.
5. Quench on ice for 5 minutes.
6. Centrifuge tail DNA for 10 minutes at full speed.
7. Decant into new tube containing 720 ml Isopropanol.
8. Precipitate DNA by inverting the tube or vortexing.
9. Spin down DNA for 5 minutes at full speed. Remove supernatant.
10. Wash pellet with 70% ethanol.
11. Spin down genomic DNA 5 minutes at full speed. Remove supernatant.
12. Allow DNA to dry for 1-2 minutes.
13. Resuspend DNA in 100-200 ml depending on size of pellet.
14. Place tube at 55°C for 1 hour to facilitate dissolution of DNA.