

## SPIN DOCTOR GENOMIC DNA PREP KIT RAPID PROTOCOL

### Rapid version suitable for PCR with robust primers (15MIN.)

#### **Important**

The rapid version of the protocol produces DNA suitable for PCR analysis with most primers, taking 15 minutes after sample digestion. It is not recommended for Southern Blot analysis or PCR with less robust primers - in this case please use the standard protocol.

A 2-3mm mouse tail sample or 1-2mm rat tail sample will generate sufficient DNA for most applications, and the digest will be complete in approximately 2 hours. Larger tail sections can be used (up to 1.2cm for mouse or .5cm for rat) but require longer digestion times. Larger sample sizes can also be used to obtain higher yields and concentrations.



Sample size will dictate lyses/digestion time – please refer to incubation chart



The largest sample size that can be used is 1.2cm from a mouse and .5cm from a rat – these sample sizes will require longer digestion times



Tail hair is NOT a problem – hair will pellet down with DNA



The supernatant contains clean genomic DNA – hair and solids can be discarded

#### **Protocol**

1. Add tail or ear punch sample to the Genomic Isolation Tube
2. Resuspend the Genomic Isolation Tube using 500 uL of Genomic Resuspension Buffer and Incubate at 57° C for 1 – 3 hours
  - A. Mix by vortexing briefly
  - B. Periodic vortexing will help speed digestion
  - C. The digest is complete once the tissue has been dissolved (bone and hair might remain) – please refer to incubation chart for approximate digestion times

Incubation Chart	
Sample Size	Digestion Time
<b>2mm</b>	<b>Under 2 hours</b>
<b>3mm</b>	<b>2.5 hours</b>
<b>6mm</b>	<b>3 hours</b>
<b>1.2cm</b>	<b>Overnight</b>

\* Tubes can be left to digest overnight if more convenient

3. Add 800 uL of Genomic DNA Wash Buffer and mix by inverting 30 times or by vortexing
4. Add 600 uL of Isopropanol and mix by inverting 30 times or by vortexing
5. Spin at 14,000 g for 5 minutes
  - A. Decant supernatant by pouring it off and then pipetting off remains
  - B. Allow samples to air dry for 2 minutes
6. Resuspend in 250 uL of Final Resuspension Buffer (10mM Tris pH 8.0)
  - A. Vortex to re-suspend DNA
7. Spin at 14,000-16,000 g for 5 minutes
  - A. Transfer 200 uL of the supernatant into a clean tube, use care not to transfer any hair or solids
  - B. DNA is ready for PCR