

## **The E-Prep Reagent**

**Cat. #: 601-P (50ml)**

**Product description:** The E-prep reagents mediate rapid lysis of biological samples, while maximally maintaining the integrity of extracted genomic DNA. The E-prep reagents also contain inhibitors that effectively suppress the inhibitory activities of crude lysates that otherwise may hinder with PCR reactions. Therefore, DNA released in the E-prep reagent is compatible for one-step PCR amplification without tedious DNA isolation.

### **Instruction for DNA Extraction from Blood**

1. For 20 µl blood, add 1ml water and vortex vigorously for 10 sec. After standing at room temperature for 10 min, vortex for 10 sec. Centrifuge for 2 min at a maximal speed and discard the supernatant as much as possible.
2. To the pellet, add 100µl of the E-Prep<sup>®</sup> reagent containing (freshly prepared) 0.5 mg/ml Proteinase K (Sigma, cat # p6556, not included). Briefly vortex to disperse precipitated cells, followed by incubation at 56°C for 1 hr. Proteinase K is stable in the E-Prep<sup>®</sup> reagent for ~24 hrs.
3. Incubate the tubes at 85°C (in a water bath) for 45 min to inactivate proteinase K, which may digest Taq polymerase during PCR amplification. Centrifuge at a maximal speed for 3 min and transfer 50 µl supernatant to a new tube. Crude lysates prepared by this procedure may be stored at -20°C for 1 year or at 4°C for 1 week with intact efficacy.
4. Use 4 ng of extracted DNA for PCR amplification by using an appropriate PCR system such as AmpFISTR Identifier System. Evaluate PCR products for genotyping by using an appropriate analyzer such as the ABI PRISM 3100 automatic DNA sequencer, or perform DNA qualification and quantification by Agarose gel electrophoresis and spectrophotometry, and use it for amplification.

### **Instruction for DNA Extraction from Bloodstain**

1. Add 1 ml distilled water to a bloodstain sample (~2 mm diameter) in 1.5 ml centrifuge tube and vortex for 10 sec. Centrifuge for 2 min at a maximal speed and discard the supernatant.
2. Add 100 µl of the E-Prep<sup>®</sup> reagent containing (freshly prepared) 0.5 mg /ml Proteinase K (Sigma, cat # p6556, not included). Follow the step 2 of the instruction for Blood.
3. Follow the steps 3 and 4 of the instruction for Blood.

### **Instruction for DNA Extraction from Buccal Swab**

1. Put a thin surface strip of the buccal swab into 1.5 ml centrifuge tube. Add 100 µl of the E-Prep<sup>®</sup> reagent containing (freshly prepared) 0.5 mg /ml Proteinase K (Sigma, cat #p6556, not included). Briefly vortex to disperse precipitated cells, followed by incubation at 56°C for 1 hr. Proteinase K is stable in the E-Prep<sup>®</sup> reagent for ~24 hrs.
2. Follow the steps 3 and 4 of the instruction for Blood.

### **Instruction for DNA Extraction from Hair Samples**

1. Put 4 pieces of 3 mm-length hair follicles into a 1.5 ml centrifuge tube. Add 200 µl of the E-Prep<sup>®</sup> reagent containing (freshly prepared) 0.5 mg /ml Proteinase K (Sigma, cat #p6556, not included) and incubate at 56°C for 1 hr. Proteinase K is stable in the E-Prep<sup>®</sup> reagent for ~24hrs.
2. Follow the steps 3 and 4 of the instruction for Blood.