All^{ele}-In-One Blood DNA Isolation & PCR System, a one-step reaction using the single buffer system is sufficient for preparing DNA as PCR template.

Traditional methods for performing genotyping using blood samples require separation of nuclei-containing white blood cells from red blood cells, phenol extraction of chromosomal DNA, and precipitation of DNA for PCR. They are particularly not suitable for high through-put analysis. All^{ele}-In-One Blood DNA Isolation & PCR system provides a simple one-step method for blood genomic DNA genotyping. The Isolation Buffer contains a combination of enzyme(s), detergents, and other chemical reagents that isolate enough genomic DNA from preserved blood, clotted blood, or isolated white blood cells for direct use as PCR template. It is best used in combination with All^{ele}-In-One PCR MasterMix, specifically formulated to accommodate DNA template from lysis buffer that contains protease(s).

All^{ele}-in-One Blood DNA Isolation & PCR system offers a variety of advatages including:

♦ **Simple buffer system:** Unique from Allele Biotech Enzymes, this single buffer system is the only product that contains everything for lysis, no need to add protease K or any other components before use.
♦ **Single step reaction:** The incubation is to be performed at a convenient 50-55°C temperature for 0.5 hours or longer, and the lysate is ready for PCR.
♦ **Consistent:** Works with extremely high success rates and is fully guaranteed if used in combination with Allele-in-One PCR MasterMix system.
♦ **Lowering costs:** Adds only 40 cents or less to each genotyping sample while saving enormous amounts of material and time from traditional methods.

Box 1 | Genotyping Results

Human blood samples treated with Blood DNA Isolation Buffer and 2X All-In-One PCR MasterMix. PCR for 25 cycles and products run on a 1% agarose gel.

Each batch of reagents is vigorously tested for consistency and stability.

All^{ele}-in-One Blood DNA Isolation buffer is suitable:

♦ Preparing genomic DNA from human or animal blood samples for genotyping PCR.

The Blood DNA Isolation & PCR kit includes All^{ele}-in One PCR MasterMix, which is optimized for DNA template prepared with the lysis buffer but can also be used for most routine PCR reactions.

Box 2 | Product List

Blood DNA Isolation Buffer *100µl per reaction*	
ABP-PP-BD01100	100 rxns
ABP-PP-BD01500	500 rxns
Blood DNA Isolation & PCR Kit *10µl per reaction**	
ABP-PP-BD02100	100 rxns
ABP-PP-BD02500	500 rxns

*All Blood DNA Isolation & PCR Kits contain **2X PCR Mastermix,** also sold separately:
Cat #: **ABP-PP-MM02961**

Storage: -20°C and -80°C

Protocols

Preserved blood samples:

1. Take 1 ml of desired number of blood samples, centrifuge at 3,000 rpm in microcentrifuge tubes for 5 minutes. Transfer the white-cell containing interface section to a new set of tubes.

2. Add 100 µl Blood DNA Isolation Buffer to the cells, incubate at 50-60°C, with or without agitation, for 15 minutes.

3. For each new PCR primer pair, use 1 µL of the lysate as PCR template.

♦ *Please see reverse side for Recommended PCR Protocol & Troubleshooting*

Protocols Continued

Whole Blood:

Blood samples may be mixed with Isolation buffer without separation and removal of red cells. Mix 100 µL whole blood (preserved or clotted) with 100 µL Isolation buffer, mix well by inversion of tubes, and incubate at 50-60°C for 15 minutes. Use the resulting lysate for PCR reactions.

Box 3 | Recommended PCR Setup

All^{ele}-in One PCR 2X MasterMix	5µL
Lysate	0.05 - 0.5µL**
Forward Primer	0.2 - 0.5µL**
Reverse Primer	0.2 - 0.5µL**
Fill to 10µL with nuclease-free water	

**Lysate and primer concentrations vary based on primer pair.

Notes:

Welcome to Join in the Discussion at Allele's Network:

Allele News: news.allelebiotech.com

Allele Blog: blogs.allelebiotech.com

Allele Facebook: http://www.facebook.com/…

Allele Twitter: http://www.twitter.com/allele_biotech

Allele Myspace: http://www.myspace.com/allelebiotech

www.allelebiotech.com

Related Products

- **Custom Oligo Synthesis**
  - We specialize in very long oligos (e.g., 215 nt) and will ship or deliver our oligos within 24hours. Our oligo synthesis service offers a large variety of synthesis scales, modifications and purifications for our customer's various needs.
- **All^{ele}-In-One PCR MasterMix**
  - Pre-mixed solution containing: Taq DNA polymerase, MgCl2, dNTPs, an inhibitor of Taq at low temperatures, and optimal PCR reaction buffers.