# ProPrep™ Genomic XL

*Genomic DNA from Whole Blood using ProCipitate™*

**More than 100,000 PCR reactions can be obtained from one, 10 ml sample**
**Massive PCR or SNP strategies with practical quantities of blood**

| Product | Size | Item No. |
|---|---|---|
| **ProPrep™ Genomic XL-2** | 2, 10mL blood samples, or 20, 1ml blood samples | PBKXL-2 |
| **ProPrep™ Genomic XL-10** | 10, 10mL blood samples, or 100, 1ml blood samples | PBKXL-10 |

ProPrep™ Genomic XL is a complete DNA purification system based upon the unique protein binding reagent, ProCipitate™. The isolated DNA is of the highest quality, and PCR can be achieved from as little as 1-2ng of template DNA. This means that more than 100,000 PCR reactions can be obtained from one, 10ml whole blood sample.

The flexible ProPrep™ system permits the user to customize a massive PCR or SNP strategy without regard to collecting impractical quantities of whole blood from any one individual.

ProPrep™ Genomic XL can be scaled to accommodate different sample sizes. The whole protocol can be completed in approximately one hour.

## BENEFITS

- High Yield – no bound DNA
- Simple – no specialized equipment
- Minimum Handling –centrifuge format
- Safe – non-hazardous solid phase
- Scaleable – proportion reagents to sample size
- Fast – does not require a clean nuclear pellet

## MATERIALS AND SCOPE OF SUPPLY

| Items Required | ProPrep™ Genomic SM | Storage |
|---|---|---|
| Isopropanol (96-100%) | Optional | ---- |
| SL1 Red Cell Lysis Buffer | Supplied | Room Temp. |
| GL2 Lysis Buffer | Supplied | Room Temp. |
| TR3 Resuspension Buffer | Supplied | Room Temp. |
| ProCipitate™ | Supplied | 4°C |
| Wide Bore Pipette Tips | Not Supplied | ---- |

## PROTOCOL

**This protocol can be adjusted proportionally to accommodate different sample sizes. Sample protocol is based on 10 ml starting sample. For 96-well formats, consider ProPrep™ Genomic 96. For direct lysis protocol, consider ProPrep™ Genomic SM.**

1. Add 30 ml SL1 solution to 10 ml of whole blood to selectively lyse red cells. Mix by inversion. Allow to stand for 10 minutes at room temperature. Mix again by inversion.
2. Centrifuge for 10 minutes at 2000 x G.
3. Aspirate supernatant, leaving behind small volume of supernatant and pellet.
4. Add 4 ml GL2 and mix by re-pipetting to lyse buffy coat cells. Transfer the lysate to a new centrifuge tube. Allow to stand for 5 minutes.
5. Shake **ProCipitate**™ well to resuspend solid-phase. Using wide bore pipette tip, add 10 ml of **ProCipitate**™, vortex, and allow to stand for 5 minutes.
6. Centrifuge for 6 minutes at 10,000 x G.
7. Transfer the supernatant to a new centrifuge tube. Note - if the supernatant has suspended particles in it, re-centrifuge for 1 minute at 10,000 X G.

Options – After centrifugation, the purified DNA is contained within the lysis buffer. The DNA can then be either alcohol precipitated using the "Alcohol Precipitation Protocol", or simply diluted using the "Dilution Protocol", to eliminate inhibitory effects of the lysis buffer.

### Alcohol Precipitation Protocol

8. Gently layer 10 ml of Isopropanol. Mix by inversion about 25 times.
9. Centrifuge for 10 minutes at 2000 X G. Carefully decant the supernatant while recovering the DNA pellet. Invert the tube onto an adsorbent paper towel for 15 minutes.
10. Add 1-5 ml (or desired volume) of TR3 to the pellet, mix by tapping the tube. Incubate for 1 hour at 65°C to re-solubilize the DNA.

### Dilution Protocol

The volume recovered after centrifugation is approximately 10 ml. A minimum 1:10 dilution is made with DI water. To achieve the maximum number of PCR reactions per sample, dilution up to 1:50 can be made. Typically 10 μl of the diluted purified DNA is utilized as template for PCR.