

Providing the Best Quality Genomic DNA for Bisulfite Conversion & PCR

- High quality DNA from whole blood, plasma, serum, cells, and tissue in less than 10 minutes without proteinase-K digestion.
- Innovative buffer chemistries effectively remove PCR inhibitors during the purification process.
- Silica bead, spin column or 96-well plate formats for DNA that is ideal for PCR, bisulfite conversion/methylation detection, sequencing, genotyping, etc.



The **Genomic DNA Kits** are simple procedures for the rapid isolation of total DNA (e.g., genomic, mitochondrial, viral) from a variety of biological sample sources. The products have been optimized for maximal recovery of ultra-pure DNA without RNA contamination and are compatible with whole blood (fresh or stored), serum, plasma, buffy coat, solid tissue, bone marrow and buccal cells, cells from culture, and many biological liquid samples. For processing, simply add the specially formulated

Input

Whole blood, plasma, serum, tissue, cells, and biological liquids from humans, mice, rats, etc.

DNA Yield

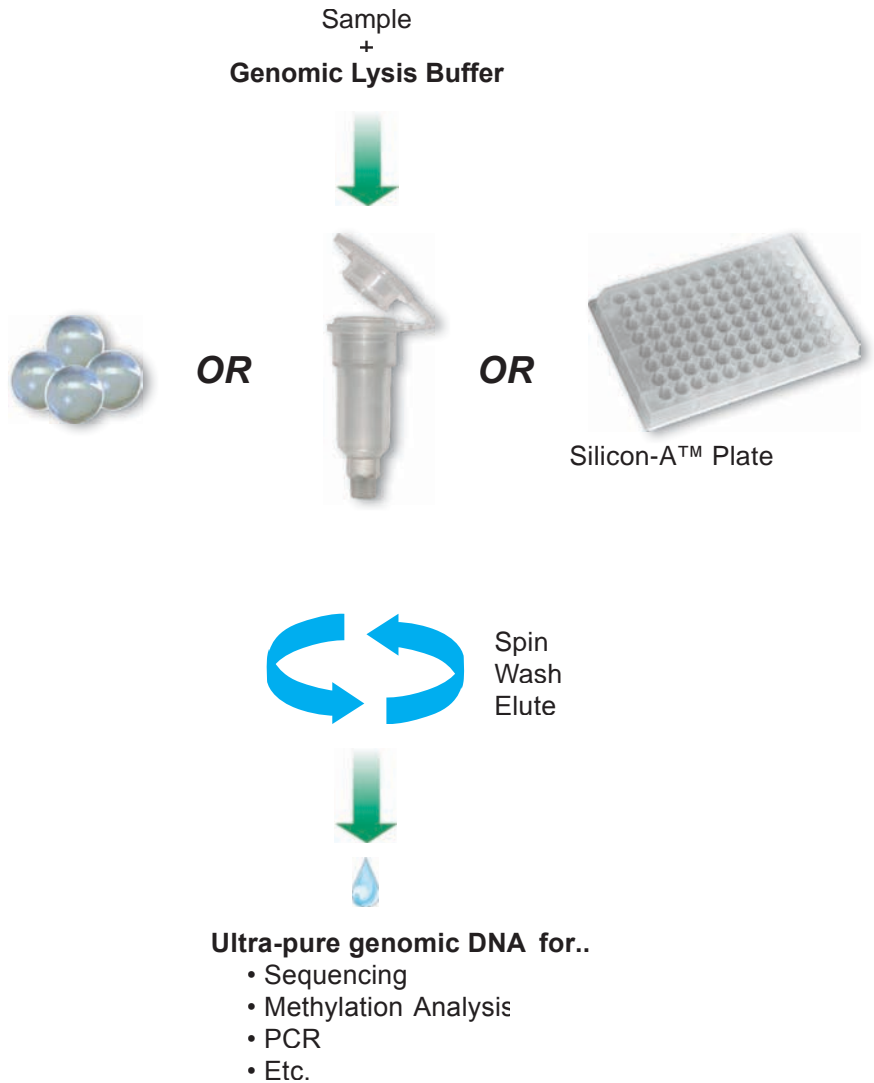
3-7 µg DNA per 100 µl blood. Skeletal, heart, and brain tissues yield 1-3 µg DNA per mg. Liver, kidney and lung tissues yield 3-5 µg DNA per mg.

DNA Purity

$A_{260}/A_{280} > 1.8$

Format

Microcentrifuge or Centrifuge, Vortex.

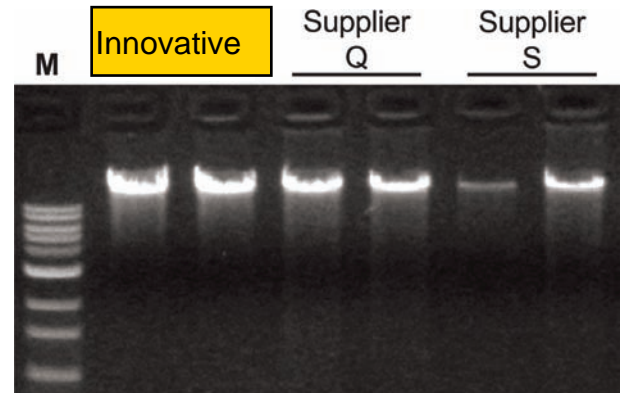


To process **Whole Blood, Serum, and Plasma** using the **Genomic DNA II Kit...**

1. Add 200 μl of **Genomic Lysis Buffer** to 50 μl of blood, serum, or plasma. Mix completely by vortexing 4-6 seconds, then let stand 5 minutes at room temperature.

Note: Add 200 μl Genomic Lysis Buffer to all samples < 50 μl . For samples larger than 50 μl , add a proportional amount of Genomic Lysis Buffer (e.g., for 100 μl blood, add 400 μl Genomic Lysis Buffer).

2. Transfer the mixture to a **Column** in a **Collection Tube**. Centrifuge at 10,000 $\times g$ for one minute. Discard the **Collection Tube** with the flow through.
3. Transfer the **Column** to a new **Collection Tube**. Add 200 μl of **DNA Pre-Wash Buffer** to the spin column. Centrifuge at 10,000 $\times g$ for one minute.
4. Add 500 μl of **g-DNA Wash Buffer** to the spin column. Centrifuge at 10,000 $\times g$ for one minute.
5. Transfer the spin column to a clean microcentrifuge tube. Add ≥ 50 μl **DNA Elution Buffer** or water to the spin column. Incubate 2-5 minutes at room temperature, then centrifuge at top speed for 30 seconds to elute the DNA. The eluted DNA can be used immediately for molecular based applications or stored $\leq -20^\circ\text{C}$ for future use.



High yield/quality DNA is successfully isolated from porcine whole blood using the **Genomic DNA II Kit™**. Equivalent amounts (100 μl) of blood were processed without Proteinase K using the **Genomic DNA II Kit™** in half the time as compared to the kits from suppliers **Q** and **S**. Equal volumes of eluted DNA were then analyzed (in duplicate) in a 0.8% (w/v) TAE/agarose/ethidium bromide gel. The size marker "M" is a 1 kb ladder