

# Certificate of Analysis

**Product Name:** Blood and Serum DNA isolation Kit

**Catalog Number:** K5017100

**Shipping Condition:** Room temperature

## Description

The Blood and Serum DNA Isolation Kit were designed for the purification of not only genomic DNA from whole blood and cells, but also genomic DNA fragment (circulating DNA) from serum, plasma, and bio fluid in a spin column format. No phenol-chloroform extraction, no protease, or no precipitation steps are involved. The sample addition and washing steps can be performed using compatible vacuum manifold, while the lysis of cells and the final elution of the DNA product are performed using a table-top centrifuge.

The blood cells in whole blood or other cultured cells and serum are first lysed in the lysis binding buffer that contains the denaturant guanidine HCl and Triton X-100. Ethanol is then added to the samples, which are then added to the filter spin columns. This step facilitates the binding of DNA to the filter matrix. Under these conditions the DNA binds to the membrane while other contaminants are washed through. The columns are then washed to further remove protein, buffer components and other contaminants using two ethanol-containing wash buffers and the final genomic DNA product is eluted in TE. The final DNA product can be used directly for quantitative PCR and other downstream applications.

## Quality Control

A representative kit from the same lot is randomly selected for blood genomic DNA isolation from 200  $\mu$ l fresh whole blood. The performance should be as follows:

Yield	3 $\mu$ g-9 $\mu$ g
Purity	UV <sub>260/280</sub> > 1.7
DNA size	99% of DNA is >20kb
Total time of prep	less than 25 min

## Kit Components

1. One Blood and Serum DNA Isolation Kit which contains the following reagents

Item	Part #	Amount	Storage
1. Lysis Binding Buffer	K5017100-1	21 ml	RT
2. Wash Buffer 1	K5017100-2	26 ml	RT
3. Wash Buffer 2	K5017100-3	12 ml	RT
4. TE	K5017100-4	10 ml	RT
5. spin column set	K5017100-5	100 units	RT

2. One Certificate of Analysis

3. One user's manual

4. One MSDS

**FOR IN VITRO RESEARCH USE ONLY**

**APPROVED BY:** \_\_\_\_\_

