# **Magnetic Blood Genomic DNA Kit**

——Highly efficient purification of high quality genomic DNA from 100 μl-1 ml blood

Cat.no.	No. of preps
4992402	50
4992403	200
4992976	5×200

#### **Kit Contents**

Contents	50 preps	200 preps	1000 preps
Buffer GHL	20 ml	80 m <b>l</b>	5×80 ml
Buffer GDA	25 ml	90 ml	5×90 ml
Buffer PWD	20 ml	2×40 ml	5×2×40 ml
Proteinase K MagAttract	1 ml	4×1 ml	5×4×1 ml
Suspension G	1 ml	4×1 ml	5×4×1 ml
Buffer TB	15 ml	30 m <b>l</b>	5×30 ml

### **Required Reagents**

Isopropanol, ethanol

### **Required Instruments**

Magnetic stand, or automated pipetting instruments such as Hamilton Microlab STAR, Beckman Coulter Biomek FX and Capitalbio LabKeeper, or automated magnetic rod instruments such as Thermo KingFisher Flex and Taco.

#### **Storage Conditions**

Store at room temperature (15-25°C).

#### **Description**

The kit adopts magnetic beads with unique separation function and a unique buffer system to separate and purify high-quality genomic DNA from 100  $\mu$ l-1 ml of blood. Unique embedded magnetic beads have strong affinity for nucleic acid under certain conditions. When the conditions change, the magnetic beads release adsorbed nucleic acid, thus achieving the purpose of fast separation and purification of nucleic acid. The whole process is safe and convenient. With large extracted genomic DNA fragments, high purity and reliable quality, it is especially suitable for automatic extraction of high-throughput workstations. The DNA purified by the kit can be suitable for various conventional operations, including enzyme digestion, PCR, fluorescence quantitative PCR, library construction, Southern hybridization, chip detection, high-throughput sequencing and other experiments.

#### **Features**

- Simple and fast: Ultra-pure genomic DNA can be obtained within 1 hour
- High Throughput: It can integrate the automated instrument of pipetting and magnetic rod to carry out high throughput extraction experiments.
- Safe and non-toxic: No toxic organic reagents such as phenol/ chloroform are needed.
- High purity: The obtained DNA has high purity and can be directly used in chip detection, high-throughput sequencing and other experiments.

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## **Experimental Example**

DNA NanoDrop measurement results of DNA extracted from 200  $\mu I$  blood using TIANGEN Magnetic Blood Genomic DNA Kit and relevant product from Supplier G

Product	Sample No.	DNA concentration (ng/µl)	Average concentration (ng/µI)	Total DNA (µg)
TIANGEN Magnetic	1	61.4	55.8	11.16
Blood Genomic DNA Kit	2	50.2	55.6	
Relevant product	1	45.9	47.2	9 44
from Supplier G	2	48.5	47.2	9.44

Company G

#### **Extraction Yield**

Sample	Sample volume (µI)	DNA yield (μg)
Carab bland	100-250	4-8
Fresh blood	250-1000	8-25
Cord blood	100-250	4-10
Long-term preserved blood	100-250	3-6

Use TIANGEN Magnetic Blood Genomic DNA Kit and relevant product from Supplier G to extract DNA from 200  $\mu l$  of blood. DNA was eluted with 200  $\mu l$  Buffer TB. Take 5  $\mu l$  for electrophoresis, and 2  $\mu l$  for NanoDrop 2000 to measure concentration and purity. The results show that the extraction yield of TIANGEN Magnetic Blood Genomic DNA Kit is 18% higher than that of Supplier G. M: TIANGEN Marker D15000