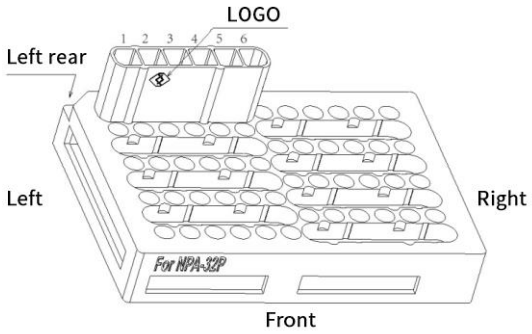
【Matters Needing Attention】

1. This kit is suitable for anticoagulant whole blood. For clot samples, liquefaction treatment is required.
2. If the room temperature is too low, it is necessary to preheat the bottled Lysis Buffer in a water bath at 56℃ for 10 minutes to confirm no crystallization precipitation before use.
3. The above procedure is suitable for the use of Bioer NPA-32P purification instrument. If other nucleic acid extraction and purification instrument is used, the operation procedure should be adjusted according to the performance of different instruments.
4. Use uv spectrophotometer to measure OD_{260} and OD_{280} of nucleic acid sample solution, and the Range of OD measurement value should be between 0.1 and 1.0. If not, dilute or concentrate the nucleic acid sample solution appropriately.

【Reagent strip installation diagram】



【Company Information】

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MagaBio plus Whole Blood Genomic DNA Purification Kit

【Kit Components】

Cat#	BSC08T1S	BSC08S1S	ingredient
Components	**16 Tests**	**32 Tests**	
PK Solution	0.16 mL	0.320 mL	Protease K Solution
Lysis Buffer	16 Prepackaged Reagent Strips	32 Prepackaged Reagent Strips	Surfactants and Tris buffers
WB1 Buffer			High salt solution
Wash Buffer			Low salt solution
Elution Buffer			Low salt solution
MagaBio Reagent			Magnetic particles coated with silicon
Handbook	1	1	/

【Storage and expiry date】

1. The kit can be transported at room temperature.
2. The kit should be stored at 2~8℃.
3. All reagents are valid for 12 months if stored properly.

【Introduction】

The kit provides a very simple, fast and cost effective technique to isolate high quality DNA. Using one simple protocol, high yield of purified DNA can be isolated from whole blood. MagaBio sample processing is based on proprietary magnetizable particles--MagaBio Reagent. The pure DNA can be applied extensively in PCR, Real-time PCR,sequencing, Southern hybridization, mutant analysis, SNP and the others.

According to the special interaction, use MagaBio nucleic acid separation system with a general protocol---sample processing, MagaBio adsorption, washing and elution, and can go high-throughput.

【Principle and Advantage】

DNA in the sample is released by PK Solution and Lysis Buffer. Released DNA is bound exclusively and specifically to the MagaBio Reagent. DNA bound to Magnetic particles are captured by a magnetic tool and contaminants are removed by Wash Buffer once or more. The DNA is then eluted from particles by Elution Buffer or molecular grade water.

【Apparatus and materials to be prepared by the user】

1. Magnetic Rack or Bioer NPA-32P purification instrument;
2. Vortex mixer;

【Sample Requirements】

- Apply to anticoagulant whole blood.
- If the sample volume is less than 200μL, add an appropriate volume of PBS buffer or normal saline to achieve a total volume of 200μL.
- DNA is extracted from mammalian blood in the same way as human blood.
- When extracting DNA from bird blood, add no more than 20μL of blood sample to 200μL of PBS solution, mix well and start extracting.

【The Method of Inspection】

1. Remove the required number of pre-packaged reagent strips from the self-sealing plastic bag. If you find magnetic beads sticking to the tube wall or sealing film of the pre-packaged strip, mix the strip upside down several times to re-levitate the beads.
2. The pre-packaged reagent strip was fixed on the plate rack (see installation diagram on page 4 for details), and centrifuged briefly in a 96-well plate centrifuge to avoid liquid hanging on the tube wall and sealing film, so as to ensure the volume of the purified reagent.

Note: when placing the preencapsulated reagent strip, see the reagent strip installation diagram. Ensure that the reagent strip is inserted into the bottom of the tray.

3. Remove the tray from the centrifuge and tear the reagent strip seal film.
4. Add 200μL sample and 10μL protease K to the first well of each prepackaged reagent strip. Avoid cross contamination.

   The reagent position of each pre-packaged reagent strip is shown in the following table:

Hold	1	2	3	4	5	6
Reagent	Lysis Buffer	WB1 Buffer	Wash Buffer	Wash Buffer	Elution Buffer	MagaBio Reagent
Volume	500μL	500μL	800μL	800μL	80μL	200μL

5. Place the rack with reagent strips in the Bioer NPA-32P purification instrument.Insert the jacket into the instrument.

Note: Double check that the reagent strip is inserted into the bottom of the tray

6. Import the pre-set running program and start the program. Please refer to the following table for running program settings:

Step	**Well**	**Name**	**Waiting Time（min：ss）**	**Mixing Time（min：ss）**	**Magnet Time（min：ss）**	**Adsorption**	**Speed**	**Volume（μL）**
1	1	Lysis	00 : 00	20 : 00	00 : 00	Normal	F	700
2	6	Beads	00 : 00	00 : 15	00 : 30	Strong	S	200
3	1	Binding	00 : 00	10 : 00	03 : 00	Strong	F	700
4	2	Wash 1	00 : 00	03: 00	01 : 00	Strong	F	500
5	3	Wash 2	00 : 00	02: 00	01 : 00	Strong	F	800
6	4	Wash 3	00 : 00	02: 00	01 : 00	Strong	F	800
7	5	Elution	01 : 00	05 : 00	01 : 00	Normal	S	80
8	6	Discard	00 : 00	00 : 30	00 : 00	Normal	S	200

Lysis temperature : 65℃, Lysis heating end step 2;

Elution temperature : 75℃, Elution start heating step 7 .

7. At the end of the program, transfer the eluent in the 5th well of each pre-packaged reagent strip to a clean nuclease-free centrifuge tube. If not immediately tested, please transfer the extracted products to below -20℃ for storage.

【Limitations of Testing Methods】

Sample size:

The amount of blood extracted from mammals was not more than 200μL.

The amount of blood extracted from bird was not more than 20μL.

【Product performance index】

1.7 ≤ Purified nucleic acid OD260/OD280≤ 2.1. The yield of genomic DNA extracted from 200μL whole blood was not less than 2μg.