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CAUTION! Professional use only. Follow instruction manual before use. Reading and carefully following these warnings will minimize usage errors, other possible risks and hazards. Wear safety glasses, clothes, and gloves.

## Magic-Auto Whole Blood Genomic DNA Extraction Kit User Guide

| Catalog Number | Pack Size |
|----------------|-----------|
| ZT-MABD-01-24  | 24 Test   |
| ZT-MABD-01-48  | 48 Test   |
| ZT-MABD-01-96  | 96 Test   |

| content and storage condition |                       |                        |                       |                                 |  |  |  |
|-------------------------------|-----------------------|------------------------|-----------------------|---------------------------------|--|--|--|
| Plate<br>Number               | Content               | Quantity<br>(Per Well) | Shipping<br>Condition | Routine<br>Storage<br>Condition |  |  |  |
| 1                             | Lysis & Binding Plate | 0,6 mL                 | RT                    | RT                              |  |  |  |
| 2                             | Softec Beads Plate    | 0,6 mL                 | RT                    | RT                              |  |  |  |
| 3                             | Wash Buffer I Plate   | 0,6 mL                 | RT                    | RT                              |  |  |  |
| 4                             | Wash Buffer II Plate  | 0,6 mL                 | RT                    | RT                              |  |  |  |
| 5                             | Wash Buffer III Plate | 0,6 mL                 | RT                    | RT                              |  |  |  |
| 6                             | Elution Plate         | 0,6 mL                 | RT                    | RT                              |  |  |  |

### **Content and Storage Condition**

| Content                  |   | Volun   | Storage   | Shipping  |           |
|--------------------------|---|---|---|---|-----------|
|                          | 24 Tests  | 48 Tests  | 96 Tests  | Condition   | Condition |
| Proteinase K             | 8 mg<br>(Solve it in<br>0,4 ml<br>Proteinase K<br>Solution before<br>the first use) | 15 mg<br>(Solve it in<br>0,75 ml<br>Proteinase K<br>Solution before<br>the first use) | 30 mg<br>(Solve it<br>Proteinase K<br>Solution before<br>the first use) | 2~8°C<br>(can be stored at<br>-20°C for a<br>long time) | RT        |
| Proteinase K<br>Solution | 0,4 mL  | 0,75 mL   | 1,5 mL  | 2~8°C   | RT        |

### Features

- 1. Magic-Auto Whole Blood DNA Extraction Kit reagents used were specifically optimized for the instrument to ensure efficient extraction.
- 2. Magic-Auto Whole Blood DNA Extraction Kit is designed for rapid and high throughput nucleic acid extraction, with pre-packed reagents included.
- 3. Kit buffer system does not contain any harmful substances, such as phenol or chloroform.
- 4. This kit is versatile and can be used with various types of automated nucleic acid extraction instruments.





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#### **Product Description**

Magic-Auto Whole Blood DNA Extraction Kit that use pre-packed magnetic beads are available for extracting genomic DNA from fresh, anticoagulant, or frozen blood samples. The kit includes relevant reagents pre-packed in 24/48/96- deep-well plates with an optimized protocol. For labs requiring high-throughput nucleic acid extraction, this kit is compatible with nucleic acid extraction instruments and can be automated.

Magic-Auto Whole Blood DNA Extraction Kit is designed to simplify the process of extracting high quality genomic DNA. By utilizing Softec magnetic beads chemistry, there is no need for phenol or chloroform extraction or alcohol precipitation. This makes it ideal for labs requiring high throughput automation. The resulting purified genomic DNA is suitable for use in various downstream applications such as amplification and enzymatic reactions.

### **Magic-Auto Whole Blood DNA Extraction Kit Protocol**

Clean the workbench to be worked with 0.5-1% (w/v) sodium hypochlorite first, then with 70% Ethyl alcohol

- To prepare the Proteinase K, add the amount specified on the Proteinase K label to the solution and mark the appropriate box with a check mark. Thoroughly mix the solution and store it at 2 ~ 8 °C. Alternatively, the solution can be subpackaged and stored at -20°C.
- 2. Please inspect the plate before usage to see whether it has a leak, is damaged, or if the liquid volume is off-target. If so, kindly don't employ it.
- 3. Shake the prepared plate three to five times on its side. Once the solution has gathered at the bottom of the well, centrifuge at a low speed or pat the plate. Remove the pre-filled plate's film with care.
- 4. To plate 1 Lysis & Binding Plate, add 20 μl of protease K and 200 μl of fresh blood a well. Avoid leaving the solution on the plate wall.
- 5. The 96 well tip combs should be fitted on plate 2 Softec Beads Plate as you should place each of the six plates on the instrument in accordance with the following table.

| Plate | Content               | Position |
|-------|-----------------------|----------|
| 1     | Lysis & Binding Plate | 1        |
| 2     | Softec Beads Plate    | 2        |
| 3     | Wash Buffer I Plate   | 3        |
| 4     | Wash Buffer II Plate  | 4        |
| 5     | Wash Buffer III Plate | 5        |
| 6     | Elution Plate         | 6        |

6. Set up the tool and editing application in accordance with the table below:

| Process             | Position | Mix time<br>(min) | Mix speed<br>(1-10) | Cycle time<br>(count) | Magnet<br>time (s) | Wait<br>time (min) | Volume<br>(µL) | Temp. |
|---------------------|----------|-------------------|---------------------|-----------------------|--------------------|--------------------|----------------|-------|
| Load Tip<br>Combs   | 1        | -                 | -                   | -                     | -                  | -                  | -              | -     |
| Lysis               | 2        | 10                | 3                   | 0                     | 0                  | 0                  | 750            | 60    |
| Get Beads           | 1        | 0.5               | 4                   | 2                     | 88                 | 0                  | 600            | OFF   |
| Binding             | 2        | 8                 | 2                   | 2                     | 151                | 0                  | 750            | 60    |
| Washing 1           | 3        | 3.5               | 2                   | 1                     | 58                 | 0                  | 600            | OFF   |
| Washing 2           | 4        | 2                 | 2                   | 1                     | 52                 | 0                  | 600            | OFF   |
| Washing 3           | 5        | 0                 | 2                   | 1                     | 20                 | 1                  | 600            | OFF   |
| Elution             | 8        | 7                 | 2                   | 3                     | 125                | 0                  | 80             | 60    |
| Unload Tip<br>Combs | 1        | -                 | -                   | -                     | -                  | -                  | -              | -     |

7. The plate 6 Elution Plate is now ready to use the purified nucleic acid. For longer-term storage, keep the plates at -20°C.