

Research Use Only

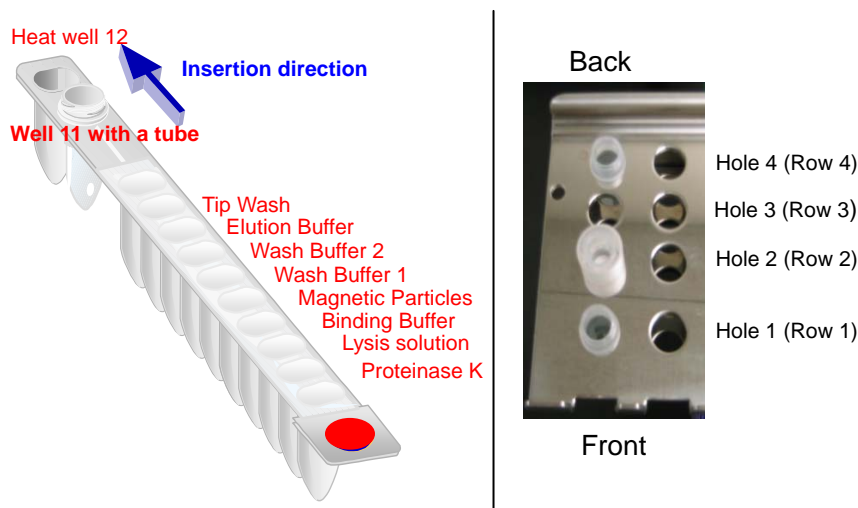
[Characteristics]

Magtration[®]-MagaZorb[®] DNA 200 High Yield is a simple, fast and cost-effective technique to isolate PCR quality DNA from a variety of starting materials*1 automatically. Since this kit was optimized to maximize DNA yields, DNA 200 High Yield is especially suitable to isolate DNA from bacteria and viruses, with the sample volume 200ul. Magtration[®]-MagaZorb[®] DNA reagents are all pre-filled in a cartridge and do not require an organic solvent. This proprietary technology eliminates the need for centrifugation, vacuum filtration or column separation, thereby minimizing cross-contamination and improving reproducibility. The purified DNA is ready for downstream applications.

Magtration[®] Technology is proprietary technology to realize fully automated magnetic particle related manipulation. Magtration[®]-MagaZorb[®] DNA Common-200 kit can only be used by the combination with Magtration[®] System 12GC.

*1: For tissue DNA purification, select tissue protocol from the menu. For preparing tissue samples correctly, please consult Tissue Supplement Protocol Code No2002.

[Cartridge and tip/tube rack Configurations]



[Kit Contents]

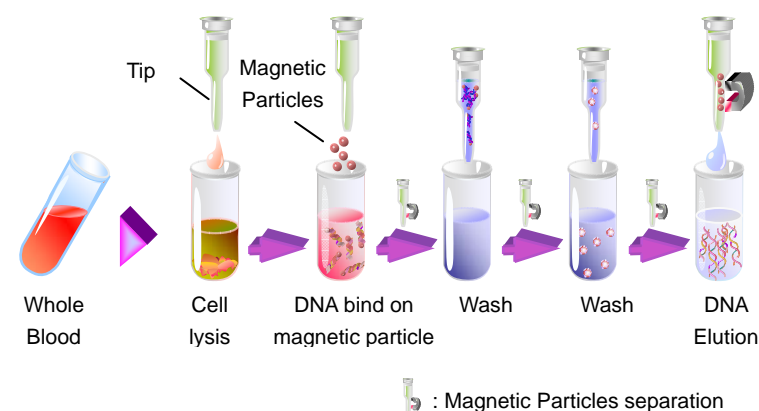
1. Reagent pre-filled Cartridges	48
2. Tips	50
3. Tip sheaths	50
4. Micro Tubes (1.5 ml)	200

[Intended Use]

Isolation of DNA from whole bloods, bacteria, viruses and tissues*1. This kit is for research use only. Do not use for diagnostic or clinical purpose.

[Principle of extraction (Magtration[®] Technology)]

Magtration Technology is a patented technology to perform beads and fluid separation by trapping magnetic particles onto the inside wall of specifically designed dispensing tip.



[Procedure]

1. Insert an IC card with Magtration[®]-MagaZorb[®] DNA Common Kit-200 protocol into instrument.
2. Disposable required
 - a. Tip Set (Tip with Tip sheath)
 - b. Three 1.5ml micro tubes

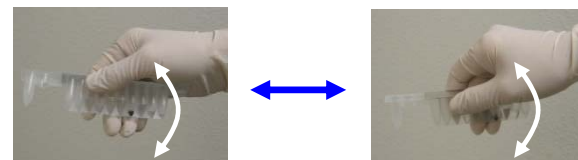
Note: Use provided micro tubes in kit. Similar tubes can be used only those have exact tube size of the provided tubes.
3. Operation

Please read carefully the Operator's Manual of Magtration System 12GC before operate.

 - a. Insert Magtration[®]-MagaZorb[®] DNA-200 cartridges in the Reagent Cartridge Rack and set the rack on the instrument.
 - b. Place a set of tip and tip sheath at the hole 2 (Row 2), 1.5ml micro tubes at hole 1 (Row 1) on the tip/tube rack and at well 11 on Reagent Cartridge too.
 - c. Dispense 200ul sample in 1.5ml micro tube and place at hole 4 (row 4) on the tip/tube rack.
 - d. Confirming all disposables, reagents and samples are set and close the front door.
 - e. Select an appropriate protocol from the menu, "DNA common" for whole bloods, bacteria and viruses or "Tissue DNA".
 - f. Select "Start" on the operation panel and follow the instruction displayed.
 - g. When the run is finished, a beep sounds. Open the door and take out elution tubes.

[Precautions to correctly use reagents]

1. During storage, reagents are evaporated and condensed on the laminated surface that makes significant volume shortage especially for Proteinase K and Magnetic particles. To ensure all reagents are settled on the well bottoms, grab aluminum seal side and swing down cartridge several times, followed by gentle taping on lab bench. **This procedure is prerequisite to obtain good results.**



2. At storage temperature less than 20°C, precipitates may appear in Lysis solution. If precipitates are observed, heat the cartridge to 25-37°C to dissolve precipitates.
3. Make sure samples are at room temperature and mixed equally before dispensing into tubes.
4. In some cases, you may find slight magnetic beads in elution, but those beads do not have detrimental effect for PCR process.
5. To calculate the DNA concentration, use commercially available DNA quantitative kits. Quant-iT[™] Picogreen[®] dsDNA Assay kit (Invitrogen Cat # P7589) is recommended. (Because of carry-over of stabilizers into eluate, A₂₃₀ to A₂₈₀ include absorbance from stabilizers, resulting in incorrect calculation of DNA concentration from A₂₆₀. The stabilizers do not have any effects to PCR and Real-Time PCR.)
6. **Some of the reagents in this kit contain high levels of protein denaturants. Wear disposable gloves when using the kit to avoid direct skin contact. Wash out with a lot of water when reagent gets on your skin, or consult with medical doctor after washing with water when it gets into your eyes.**

[Typical Performance]

Samples type	Yield	Purity (Ratio A_{260}/A_{280})
Whole Blood	~2-4ug/100ul	1.75 – 1.95
Bacteria (E.coli)	~2ug/2x10 ⁷ cells	1.82
Tissue (Human liver)	~1.93ug/mg	1.92

The yield may vary by samples or their condition slightly. The above numbers are for your reference.

[Trouble Shooting]

If you had problems, please refer to the counter measures explained below.

(1) Low yield

Possible causes	Counter measures by causes
Sample condition	Check if temperature or place stored were adequate, or the run was performed after it became to room temperature. Try another run using new flesh samples.
Storage condition of reagents	Check temperature and circumstance of storage place for any abnormality. Do not allow reagents to freeze. Vibration to the magnetic beads may affect the reagent performance. Do not store reagents under excessive vibration. Try another run with new flesh samples. At temperature less than 20°C, precipitates may appear in lysis solution that have to be dissolved before use by heating cartridge at 25-37°C.
Others	Stored blood samples in refrigerator may give lower yields depending on the period. Try another run with newly collected samples.

(2) Inadequate PCR result

Possible cause	Counter measures by causes
Yield purity	Depending on the storage condition such as period or temperature, A_{260}/A_{280} ratio becomes lower than 1.8 leading to inadequate PCR result. Try another run with new samples.
Too long target size	The average length of isolated DNA is >20kb and gives no problem for general PCR process. But too long target sized DNA may not be amplified adequately.
Others	pH condition in PCR process may affect the result.

[Storage Condition]

Store the reagents at room temperature (10-30deg. C.), and avoid high temperature and high humidity circumstance. Do not store them upside down. Do not freeze.

Cautions:

All reagents included in this kit are for research use only. Do not use for the purpose of diagnosis or as clinical testing reagents. For your safety, follow the general precautions at your lab. when using this kit. PCR method is patented by Hoffman-La Roche Co., Ltd. You may be requested to get agreement by the company, depending on the purpose of its usage.

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[Manufactured and sold by]

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