Product Application



gDNA Extraction from swab solution

of human skin surface

Kit : Maxwell® RSC Blood DNA Kit (Catalog # AS1400)
Analyses : N.A.
Application : Target sequence by NGS
Sample Type(s) : Swab solution of human skin surface
Input :

Protocol :

- 1. Wipe human skin surface section $(2cm \times 2cm)$ with cotton swab soaked with PBS.
- 2. Wash the cotton swab in 1.5 ml size centrifugation tube which include 1ml of PBS
- 3. Transfer 500µl to new 1.5 ml size centrifugation tube
- 4. Centrifuge 3,000g x 10 minutes at 4°C
- 5. Discard the supernatant
- 6. Add 290µl of Enzyme Lysis Buffer and suspend well with 1 minute Vortex.
- 7. Add 10µl of Lysozyme (20mg/ml) and suspend well with 1 minute Vortex.
- 8. Incubate 30 minutes at 37℃
- 9. Add 300µl of Lysis Buffer and 6µl of Proteinase K Solution and mix well with Vortex
- 10. Incubate 20 minutes at 56° C
- 11. Transfer to well #1 in the Maxwell RSC Blood DNA cartridge. Run method.
 - X Enzyme Lysis Buffer: 25mM Tris-HCl, pH 8.0, 2.5mM EDTA, 1% Triton X-100

Results :

Due to the very limited quantity of DNA recovered, the purified sample was directly subjected to the target sequence analysis of 16S rRNA by NGS(Illumina MiSeq).

Conclusion :

The cellulose based paramagnetic particle resin used in Maxwell RSC Blood DNA Kit, works very well for purification of tiny amount of nucleic acid because of its high binding capacity. In this application, the lysis procedure was done with Lysozyme and Proteinase K because the main purpose was the DNA purification from Staphylococcus

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aureus on human skin surface.

If the target were whole DNA from all bacteria, the lysis procedure should be considered well and be optimized for it.