5 min Blood DNA Preservation and Extraction Kit

- Catalog #: PE-1001
- Preservation of blood DNA at ambient temperature for a month without any extra cost and cold storage
- Blood DNA can be extracted from the preserved samples in less than 5 minutes without change of solution.
- No sign of degradation of DNA during the preservation.
- No pre-lysis or proteinase K step is required
- Starts with 200 ul of whole blood
- Final 4-15 ug of genomic DNA
- The extracted DNA can be used in any downstream steps without any inhibitory effect.

Total DNA extraction from whole blood using 5 min Blood Preservation and Extraction Kit. Whole blood was mixed with Blood DNA Solution and preserved from 0 to 28 days at ambient temperature. DNA was extracted followed by the supplied protocol in each indicated day. Total DNA was eluted in final 100 ul of Elution Buffer and analyzed on 1 % agarose gel by 5 ul each.
5 min Circulating DNA Preservation and Extraction Kit

- Catalog #; PE-1002
- Preservation and purification of cell free DNA or circulating DNA from plasma, serum, or urine
- Preservation of Circulating DNA or Cell Free DNA (cfDNA) at ambient temperature for a month without any extra cost and cold storage
- Circulating DNA can be extracted from the preserved samples in less than 5 minutes without change of solution.
- No sign of degradation of DNA during the preservation.
- Starts with less than 500 ul of plasma or serum

Preservation of Circulating DNA in the plasma by of 5 min Circulating DNA Preservation and Extraction Kit. Two hundred fifty ul of identical plasma sample was preserved for the indicated terms at ambient temperature. Circulating DNA was extracted based on the supplied protocol to final 100 ul volume. The extracted Circulating DNA was quantitated by qPCR target to human actin in the presence of its specific primers.

<table>
<thead>
<tr>
<th>Preservation days</th>
<th>0</th>
<th>7</th>
<th>14</th>
<th>20</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>29.76</td>
<td>29.87</td>
<td>29.64</td>
<td>29.56</td>
<td>30.21</td>
</tr>
<tr>
<td>Sample 2</td>
<td>29.96</td>
<td>30.28</td>
<td>30.05</td>
<td>28.96</td>
<td>29.45</td>
</tr>
</tbody>
</table>
Circulating DNA was extracted from the indicated volume of 5 different plasma samples using 5 min Circulating DNA Preservation and Extraction Kit or Qiamp Circulating DNA Kit. Each DNA was eluted final 100 ul. Total amount of circulating DNA was quantitated by qPCR using human actin primers. Each number indicates the average of two independent assays by CFX96 (Biorad).

<table>
<thead>
<tr>
<th>Sample ID and used volume</th>
<th>Qiamp Kit</th>
<th>5 min Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1; 0.5 ml</td>
<td>31.54</td>
<td>31.45</td>
</tr>
<tr>
<td>2; 0.5 ml</td>
<td>30.12</td>
<td>30.56</td>
</tr>
<tr>
<td>3; 0.5 ml</td>
<td>29.77</td>
<td>30.47</td>
</tr>
<tr>
<td>4; 0.5 ml</td>
<td>30.87</td>
<td>30.14</td>
</tr>
<tr>
<td>5; 0.5 ml</td>
<td>31.89</td>
<td>30.41</td>
</tr>
<tr>
<td>1; 0.25 ml</td>
<td>32.77</td>
<td>32.10</td>
</tr>
<tr>
<td>2; 0.25 ml</td>
<td>31.22</td>
<td>31.98</td>
</tr>
<tr>
<td>3; 0.25 ml</td>
<td>30.18</td>
<td>31.12</td>
</tr>
<tr>
<td>4; 0.25 ml</td>
<td>31.23</td>
<td>31.85</td>
</tr>
<tr>
<td>5; 0.25 ml</td>
<td>32.08</td>
<td>32.00</td>
</tr>
</tbody>
</table>

Extracted circulating DNA from 8 independent plasma samples was used for PCR reaction for EGFR detection. DNA was extracted from 250 ul of plasma samples and eluted to final 100 ul. Five ul of each sample was used for the PCR reaction. The size of PCR product is 240 bp.
5 min Soil RNA Preservation and Extraction Kit

· Catalog #; PE-1005
· Preservation of soil sample at 4°C for more than 2 weeks without any impact to the RNA quality.
· The preservation solution inactivates all microorganisms including virus.
· The preserved soil sample can be directly used for total RNA extraction in 5 minutes.
· Purification of RNA from tough-to-lyse bacteria, fungi, protozoa, and algae that inhabit a variety of samples including clay, sandy, silty, peaty, chalky, and loamy soils.
· Ideal tool for agro-environmental studies and potential pathogen monitoring in crop production.
· Analyses of the RNA expression profile in the soil for the metabolically active members of microorganisms
· No contamination of genomic DNA
RNA preservation and extraction from soil sample by 5 min Soil RNA Preservation and Extraction Kit. Five hundred mg of the identical soil sample was aliquoted into 1.5ml microtube and mixed with 1 ml of Soil RNA PE Solution and used for preservation for the indicated days at 4°C; lane 1, day 0, lane 2; day 7, lane 3; day 0, lane 4; day 7, lane 5; day 10, lane 6; day 14. The preserved sample was used for total RNA extraction and eluted by 100ul of RNA Elution Buffer. Ten ul of each sample was loaded on 1.5 % agarose gel. Lanes 1 and 2; without DNase reaction, lanes 3 to 6; after DNase reaction. The DNase reaction is essential for an exclusive RNA preparation. The soil sample can be preserved for 14 days at 4°C without influence to the quality of RNA.

RNA preservation and extraction from soil sample by 5 min Soil RNA Preservation and Extraction Kit. Five hundred mg of the identical soil sample was aliquoted into 1.5 ml microtube and mixed with 1 ml of Soil RNA PE Solution and used for preservation for the indicated days at 4°C (Lane 1; day 0, lane 2; day 3, lane 3; day 5, lane 4; day 10, lane 5; day 14, and lane 6; day 20). The preserved sample was used for total RNA extraction and eluted by 100ul of RNA Elution Buffer. Ten ul of each sample was loaded on 2 % agarose gel. As notice compared to the previous data, the RNA expression profile is totally different depends on the soil sample. Also, the soil sample can be preserved for 20 days at 4°C and extracted without influence to the quality of RNA.
5 min Swab DNA Preservation and Extraction Kit

- Catalog #: PE-1006
- Preserve total sample DNA for more than a month at ambient temperature
- Purification of total DNA from buccal and cervical swab
- Purification of DNA from the preserved sample in 3 minutes
- Final 2-15 ug of genomic DNA
- The extracted DNA can be used in any downstream steps without any inhibitory effect.

DNA preservation and extraction from buccal swab using 5 min Swab DNA Preservation and Extraction Kit. DNA was extracted from the preserved swab sample at 4 different time points and eluted in final 100 ul of elution buffer. Ten ul each DNA was analyzed on 1 % agarose gel. Lane 1; day 0, lane 2, day 8, lane 3, day 15, and lane 4; day 30.

Total DNA extraction from buccal swab using 5 min Swab DNA Preservation and Extraction Kit. DNA was extracted from 6 different buccal swab samples and eluted in final 100 ul of elution buffer. Ten ul each DNA was analyzed on 1 % agarose gel.
5 min Stool RNA Preservation and Extraction Kit

- Catalog #; PE-1007
- An ideal product for microbiome research in stool/feces using metatranscriptomic analyses
- Preservation and storage of stool/feces samples without any damage to the quality and quantity of RNA at 4°C for more than 2 weeks.
- Instant inactivation of all microorganisms including virus in the samples.
- The preserved sample can be directly used for purification of cellular and microbial RNA in less than 5 min.
- Total procedure in 5 minutes without any hidden step
- All purification procedures in ambient temperature without any ice-cold and freezing step
- No genomic DNA contamination
Total RNA preservation and extraction from stool using 5 min Stool RNA Preservation and Extraction Kit. Two hundred mg of stool sample was kept in Stool RNA PE Solution for day 0 (lane 2) or 7 days (lane 3) and used for RNA extraction. RNA was eluted in final 100 ul of Elution Buffer and analyzed on 1 % agarose gel by 10 ul each. Total DNA and RNA extracted from soil sample was used as a size marker (lane 1). Please note that stool RNA is composed of some intact and minor degraded RNA without contamination of genomic DNA.

Total RNA preservation and extraction from stool using 5 min Stool RNA Preservation and Extraction Kit. Two hundred mg of stool sample was kept in Stool RNA PE Solution for each indicated period (lane 1; day 0, lane 2; day 3, lane 3; day 5, lane 4; day 8, lane 5; day 10, and lane 6; day 15) and used for RNA extraction. RNA was eluted in final 100 ul of Elution Buffer and analyzed on 1.5 % agarose gel by 10 ul each.
5 min Stool DNA/RNA Preservation and Extraction Kit

- Catalog #: PE-1008
- An ideal product for research and diagnostic for Gastroenteritis (infectious diarrhea by Norovirus and Rotavirus) and food poisoning (by bacteria of *Salmonella, Clostridium perfringens, Campylobacter, Staphylococcus aureus* etc.).
- Preserve and store stool/feces samples without any damage to the quality and quantity of DNA/RNA at 4°C for more than 2 weeks.
- Instant inactivation of all microorganisms including bacteria and virus in the samples.
- The preserved sample can be directly used for purification of cellular and microbial DNA/RNA in less than 5 min.
- All purification procedures in ambient temperature without any ice-cold and freezing step

Total DNA/RNA preservation and extraction from stool using 5 min Stool DNA/RNA Preservation and Extraction Kit. Two hundred mg of stool sample was kept in Stool DNA/RNA PE Solution for each indicated period (lane 1; day 0, lane 2; day 3, lane 3; day 5, lane 4; day 8, lane 5; day 10, and lane 6; day 14) and used for DNA/RNA extraction. Nucleic acid was eluted to final 100 ul of Elution Buffer and analyzed on 1.5 % agarose gel by 10 ul each.
5 min Stool DNA Preservation and Extraction Kit

- Catalog #; PE-1009
- An ideal product for research for food poisoning (by bacteria of *Salmonella, Clostridium perfringens, Campylobacter, Staphylococcus aureus* etc.).
- Preserve and store stool/feces samples without any damage to the quality and quantity of DNA at ambient temperature for more than 2 weeks.
- Instant inactivation of all pathogenic microorganisms including bacteria and virus in the samples.
- The preserved sample can be directly used for purification of cellular and microbial DNA in less than 5 min.
- Total procedure in 5 minutes without any hidden step

Total DNA preservation and extraction from stool using 5 min Stool DNA Preservation and Extraction Kit. Two hundred mg of stool sample was kept in Stool DNA PE Solution for each indicated period (lane 1; day 0, lane 2; day 5, lane 3; day 10, lane 4; day 20) and used for DNA extraction. Nucleic acid was eluted to final 100 ul of Elution Buffer and analyzed on 1.5 % agarose gel by 10 ul each.
5 min Insect DNA/RNA Preservation and Extraction Kit

- Catalog #; PE-1010
- An ideal product for research for insect studies for molecular classification, gene expression studies, and pathogenic diagnosis and related research.
- Preserve and store insect samples without any damage to the quality and quantity of cellular RNA at 4°C for 2 days.
- Preserve and store insect samples without any damage to the genomic DNA and viral or microorganism’s DNA/RNA for more than 2 weeks.
- Instant inactivation of all pathogenic microorganisms including bacteria and virus in the samples.
- The preserved sample can be directly used for purification of cellular and microbial DNA/RNA in less than 5 min.
- Total procedure in 5 minutes without any hidden step

Total DNA/RNA preservation and extraction from insect using 5 min Insect DNA/RNA Preservation and Extraction Kit. Insect samples was kept in Insect DNA/RNA PE Solution for 2 days at 4°C (lanes 1, and 2; four Culex pipiens and lanes 3 and 4; one Apis mellifera) and used for DNA/RNA extraction. Nucleic acid was eluted in final 100 ul of Elution Buffer and analyzed on 1.5 % agarose gel by 10 ul each.
5 min Soil DNA/RNA Preservation and Extraction Kit

- Catalog #: PE-1011
- Preservation of soil sample at 4°C for more than 2 weeks without any impact to the DNA/RNA quality.
- The preservation solution inactivates all microorganisms including virus.
- The preserved soil sample can be directly used for total DNA/RNA extraction in 5 minutes.
- Purification of DNA/RNA from tough-to-lyse bacteria, fungi, protozoa, and algae that inhabit a variety of samples including clay, sandy, silty, peaty, chalky, and loamy soils.
- Ideal tool for agro-environmental studies and potential pathogen monitoring in crop production.
- Analyses of the RNA expression profile in the soil for the metabolically active members of microorganisms.

DNA/RNA preservation and extraction from soil sample by 5 min Soil DNA/RNA Preservation and Extraction Kit. Five hundred mg of the identical soil sample was aliquoted into 1.5ml microtube and mixed with 1 ml of Soil DNA/RNA PE Solution and used for preservation for the indicated days at 4°C; lane 1, day 0, lane 2; day 7, lane 3; day 10, and lane 4; day 14. The preserved sample was used for total DNA/RNA extraction and eluted by 100ul of Elution Buffer. Ten ul of each sample was loaded on 1.5 % agarose gel. The soil sample can be preserved for 14 days at 4°C without influence to the quality of DNA/RNA.