

## Saliva DNA Isolation Kit

Norgen's Saliva DNA Isolation Kit provides a fast and simple procedure for isolating genomic DNA from up to 500  $\mu\text{L}$  of saliva. The Preservation Solution provided with the kit allows for the storage of the saliva samples for extended periods of time at room temperature prior to DNA isolation. Samples can be collected either through spitting or by using a cotton swab to collect buccal cells. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. The genomic DNA is preferentially purified from the other cellular components such as RNA and proteins. The purified saliva DNA is compatible with a number of downstream applications including PCR, Southern Blot analysis, sequencing and microarray analysis.



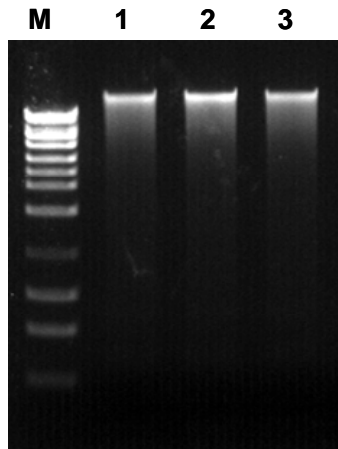
Human genomic DNA found in saliva can be used in various applications in diagnostics including the detection of biomarkers to diagnose a disease, follow the disease's progress or monitor the effects of a particular treatment. Isolation of DNA from saliva for diagnostics has become an attractive alternative to isolation from blood or tissue due to the fact that sample collection is non-invasive, the samples can be collected by individuals with little training, and no special equipment is required.

| Kit Specifications                  |                   |
|-------------------------------------|-------------------|
| Maximum Saliva Input                | 500 $\mu\text{L}$ |
| Average Yield from 0.5 mL of Saliva | 5 $\mu\text{g}$   |
| Time to Complete 10 Purifications   | 30 minutes        |

### Saliva DNA Isolation Kit Benefits

|   |   |
|---|---|
| Collected saliva samples are stable at room temperature       | The Preservation Solution provided with the kit allows for the storage of the saliva at room temperature for extended periods of time. The preserved saliva is also resistant to further bacterial contamination. |
| Fast and easy processing                                      | Rapid spin-column format allows for the processing of 10 samples in 30 minutes.   |
| Compatible with other saliva collection systems               | Norgen's Saliva DNA Isolation Kit is compatible with other saliva preservation buffers and saliva collection systems.   |
| Choice of 2 different sample collection methods               | Protocols are provided for collecting saliva samples either through spitting or using a cotton swab to collect buccal cells.  |
| Isolate DNA from small saliva samples                         | DNA can be isolated and detected from as little as 100 $\mu\text{L}$ of saliva.   |
| Recovered DNA is suitable for various downstream applications | Purified saliva DNA can be used in a number of downstream applications including PCR (Figure 2), Southern Blot analysis, sequencing and microarray analysis.  |

## Saliva DNA Isolation Kit



**Figure 1. Isolate High Quality Saliva DNA**

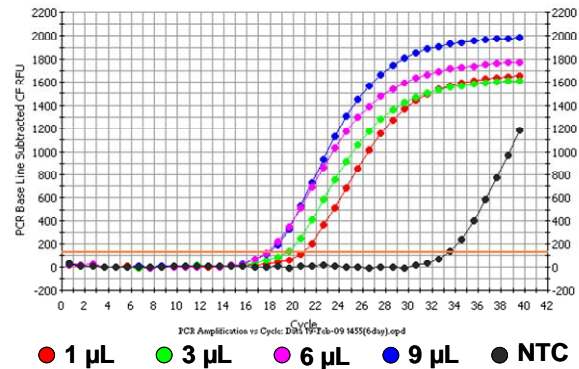
DNA was isolated from three different 250 µL saliva samples using Norgen's Saliva DNA Isolation Kit, and 10 µL samples were run on a 1.0% agarose gel (Lanes 1-3). Note the high yield and quality of the DNA in all the lanes. Lane M is Norgen's HighRanger 1kb DNA Ladder.

### Saliva DNA Isolation Kit Contents

1. Preservation Solution
2. Binding Solution
3. Purification Additive
4. Wash Solution I
5. Wash Solution II
6. Elution Buffer
7. Micro Spin Columns
8. Elution Tubes
9. Product Insert

### Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. These reagents should remain stable for at least 1 year in their unopened containers.



**Figure 2. Detection of the Human 5S Gene using SYBR Green Real-Time PCR**

Saliva DNA isolated from a 250 µL saliva sample using Norgen's Saliva DNA Isolation Kit was used as the template in a SYBR Green real-time PCR reaction to detect the human 5S gene. The DNA could be successfully amplified without any inhibition when 1, 3, 6 and 9 µL of saliva DNA was used as the template, indicating the excellent quality of the purified DNA for use in downstream applications.

### Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- Micropipettors
- Water (for rinsing of mouth)
- Nuclease-free molecular biology grade water (for cotton swab method)
- 96-100% ethanol

### Shipping Conditions

The Saliva DNA Isolation Kit is shipped at room temperature.

| Cat # | Description              | Quantity |
|-------|--------------------------|----------|
| 21410 | Saliva DNA Isolation Kit | 25 preps |