

AutoGen FLEX STAR Application Guide

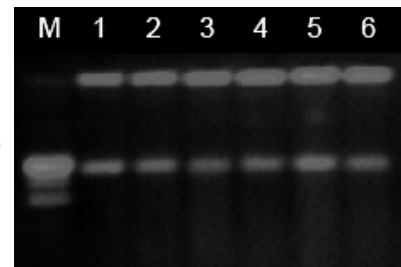
Oragene•DNA Saliva 2



- I. **Purpose:** To extract genomic DNA from saliva samples collected using the Oragene•DNA Self-Collection Kit.
- II. **Chemical Principal:** Proteinase K/organic extraction method.
- III. **Pretreatment of Saliva:**
 - A. Collect saliva by following the Oragene•DNA Self-Collection Kit User Instructions.
 - B. Incubate at 50°C for 2 hours to overnight with shaking in a waterbath or dry incubator.
- IV. **Protocol Parameters:**
 - A. **Sample Volume and Preparation:** 2.0 ml of digest solution plus 2.0 µl of glycogen (5mg/ml).
 - B. **Maximum Number of Samples:** 30 samples per run.
 - C. **Processing Time:** 3.4 hours for 30 samples (includes 1 hour drying time).
 - D. **Yield:** 20-100 µg of purified DNA per 2ml Oragene•DNA saliva solution.
 - E. **Quality:** Typical OD_{260/280} values are > 1.7.
The DNA can be used directly in downstream processes such as fluorescence DNA sequencing, PCR, Southern blotting and restriction endonuclease digestions.
- V. **Running the Protocol:**
 - A. Load Reagents and Samples
 - B. Select a Protocol
 - C. Enter Number of Samples
 - D. Start the Run

VI. Example of genomic DNA obtained from Oragene•DNA:

2ml of saliva was pre-treated with 2ml of Oragene•DNA liquid. 2ml of Oragene•DNA saliva solution plus 2µl of glycogen (5mg/ml) were loaded onto the AutoGen system for purification. Approximately 97 µg DNA per 2ml Oragene•DNA saliva was obtained with an average purity of OD 260/280 = 1.7.



* Oragene•DNA Self-Collection Kits are available from DNA Genotek (www.dnagenotek.com)

VI. Extraction and Purification Process

Process Site	Purpose	System Process
1. Manual	Digest Proteins	Mix 2ml saliva with 2ml Oragene•DNA liquid and 2µl of glycogen (5mg/ml).
2. Automated	Precipitate Protein	Add Reagent R7, mix and centrifuge. Transfer supernatant to DNA tube.
3. Automated	Precipitate DNA	Add Reagent R4, agitate, centrifuge, discard supernatant.
4. Automated	Wash DNA	Add Reagent R5, mix, centrifuge, discard supernatant. Repeat several times.
5. Automated	Evaporate Alcohol	Transfer DNA tube to incubation rack.
6. Automated	Resuspend DNA	Add Reagent R3, mix and centrifuge.

* All reagents and consumables are sold as a complete kit for Oragene•DNA Saliva extraction on the AutoGenFlex Catalog #AGKT-FXSD.

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