Saliva Collection System

in saliva veritas
GBO Saliva Collection System - SCS
in saliva veritas

Greiner Bio-One has revolutionised saliva analytics with the new, unique collection and quantification system. This is the first system in the world on a liquid collection basis, and can ensure a representative collection from the entire oral cavity. The collected saliva sample is suitable for a broad range of applications. The system fulfills the requirements of the in vitro diagnostics and medical device guidelines and provides application opportunities for developing new saliva diagnostics.

Permanent availability as well as simple, stress-free collection make saliva an interesting material for sampling. As an ultrafiltrate of blood, saliva is of scientific relevance and has become increasingly established in diagnostics over the years. Saliva is a useful alternative to blood or urine. Furthermore the infection risk for medical staff is significantly reduced due to the non-invasive collection technique.

With this unique product, the photometric determination of the saliva quantity allows for the definite determination of the analytes in the initial volume. The main advantage of the system is the basis for reproducible saliva analytics.

in saliva veritas - Areas of Application

- **Drug detection**
  The detection of narcotics, e.g. cocaine, amphetamines, cannabis etc., and psychotropic substances is becoming increasingly important for various reasons. The window of detection for narcotics and psychotropic substances in saliva is comparable with blood and conclusions can be drawn on current drug consumption. Standard enzyme immunoassays as well as instrumental analysis methods can be used.

- **Tumour diagnostics, Human genetics**
  Today’s molecular biological techniques allow for the detection of nucleic acids from various examination materials. DNA and RNA have proven to be highly stable in the saliva collected and preserved with the system. This enables early detection of oral cancer, for example.

- **Infectious disease diagnostics**
  The direct detection of viral or bacterial pathogens - e.g. Herpes simplex or the Varicella zoster viruses - using molecular biological detection methods as well as the possibility of antibody detection in saliva for pathogens opens up new, straightforward screening opportunities with regards to viral or bacterial infectious diseases.

- **Hormone analytics**
  The determination of steroid hormones, e.g. cortisol, progesterone, or testosterone as well as biogenic amines such as melatonin from saliva can give information on a person’s current hormone status. The easy, stress-free sample collection as well as the fact that saliva only reproduces the free (biologically active) hormone concentration, is a particular advantage.

- **Clinical chemistry parameters**
  The determination of saliva electrolytes, saliva enzymes such as α-Amylase, saliva proteins and saliva protein metabolites such as total protein and creatinin are just a few examples for application in clinical chemistry. They can be used as markers for an indication of a person’s state of health.
Advantages of the System During Collection

The simplicity of the system means that the collection can be carried out by both patient and medical staff.

Advantages for the patient
- Non-invasive
- Free of pain and stress
- Can be used any time, day or night
- No waiting time
- Collection can be carried out anywhere
- No invasion of privacy
- Dry mouth of viscosity not a hindrance
- Very low risk of infection

Advantages for the personnel
- Quality assurance and constant chain of continuity (primarily in forensics) are the standard of the future.

Advantages for ensuring the chain of continuity
- Protective film clearly indicates if there has been unauthorised intervention
- Sample tampering is prevented
- Sample swapping is impossible
- Two tubes for sample splitting
- Labels for immediate sample identification
- Safe sample transport

For the first time, standardisation of saliva preanalytics is ensured.

Greiner Bio-One Saliva Collection System

The Greiner Bio-One Saliva Collection System makes preanalytics even simpler. By rinsing with the saliva collection solution, saliva is collected easily and without stress. Sample collection with the collection beaker is then a comfortable procedure. The hygienic sample transfer is ensured due to the vacuum in the saliva transfer tube. The dye contained serves as internal standard and ensures reproducible saliva analysis.

The Components:

0 Mouth rinsing solution, tube 0
1 Saliva extraction solution, tube 1
2 Saliva collection beaker 2
3 2x saliva transfer tubes 3

0 Optional to cleanse oral cavity; then spilt out rinsing solution.
1 Simple saliva collection by thoroughly rinsing out the oral cavity (2 min.); contains yellow internal standard for determination of the saliva quantity.
2 For collection of saliva after rinsing.
3 Due to the vacuum in the tube, transfer is quick and hygienic. The saliva is furthermore stabilised and preserved.
Saliva Quantification Kit

The food colouring tartrazin (internal standard) is the basis that is photometrically determined (450 – 520nm) in the calibrators, controls and collected saliva samples. The calibrators guarantee the quantitative and donor specific determination of the saliva quantity in the sample. Finally, the saliva quantity in the sample is calculated. This core principle of the unique saliva collection system is an important prerequisite for correct quantity determination of analytes.

2 Controls
1. 30 U/mL
2. 70 U/mL

5 Calibrators
3. Calibrator 1: 11 U/mL
4. Calibrator 2: 27 U/mL
5. Calibrator 3: 46 U/mL
6. Calibrator 4: 66 U/mL
7. Calibrator 5: 85 U/mL

means a saliva quantity of 11 – 85% by volume

Calibration and Saliva Quantity Determination

Extinction cal = Ex 450nm – Ex 520nm

Value of sample

Article Overview

<table>
<thead>
<tr>
<th>Item n°.</th>
<th>Description</th>
<th>Pcs./carton</th>
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</thead>
<tbody>
<tr>
<td>881011</td>
<td>GBO Saliva Collection System – for Self Testing*</td>
<td>1 pc.</td>
</tr>
<tr>
<td>881002</td>
<td>GBO Saliva Collection System – for Professionals*</td>
<td>50 pcs.</td>
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<tr>
<td>881012</td>
<td>GBO Saliva Collection System, 50 pcs. bulk</td>
<td>50 pcs.</td>
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<tr>
<td>881111</td>
<td>GBO Rinsing Solution 4ml</td>
<td>1200 pcs.</td>
</tr>
<tr>
<td>881112</td>
<td>(1) GBO Saliva Extraction Solution 4ml</td>
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<tr>
<td>881210</td>
<td>(2) GBO Saliva Collection Beaker, with integrated transfer unit</td>
<td>200 pcs.</td>
</tr>
<tr>
<td>881113</td>
<td>(3) GBO Saliva Transfer Tube 3.5ml</td>
<td>1200 pcs.</td>
</tr>
<tr>
<td>881010</td>
<td>GBO Saliva Quantification Kit</td>
<td>1 pc.</td>
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</tbody>
</table>

* Self-Testing
Self-testing means that the test person can do the saliva collection his/herself without the assistance of any medical personnel. The system as well as the corresponding instructions for use is tested and certified for self-testing.

* Professionals
Doctors or medical personnel additionally have the possibility to purchase the above listed single products to create their own setting for saliva collection.