**EYEPRIM™**

*Device for conjunctival impression*

The only approved medical device to perform conjunctival impression.

- **Precise** location of the sampling zone
- **Isolation** from tear film and eyelid margin
- **Minimize** sample contamination
- **Repetitive** sampling parameters (pressure, sampling surface)
- **High** yield
- **Time saving**
- **Painless** safe, sterile
- **Ergonomic** user-friendly

**Applications**

- Cytology
- 3D Cytology
- Immunofluorescence
- Flow cytometry
- Proteomic

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Finally, with the aim of checking extraction method compatibility with differential proteomics studies, a 2D-PAGE analysis was performed. As a result of this analysis, a conjunctival protein map (Proteome) was obtained which is made up of 1263 resolved spots (Figure 2). This result and the sharpness of the proteomic map, together with the well resolved spots, demonstrated the potential utilization of the EyePrim™ device for proteomic purposes (as observed in figure 3).

![Figure 2. A. Proteomic map corresponding to 2D-PAGE of conjunctival tissue obtained using EyePrim™ device.](image1)

Groups of spots correspond to multiple isoforms of the same protein.

![Figure 2. B. Spot detection of conjunctival proteome map.](image2)
What is EYEPRIM?

EYEPRIM™ is a sampling medical device for the collection of conjunctival cells from the ocular surface of the eye, for the purpose of analysis.

EYEPRIM™ is the first validated and reliable tool addressing the sampling method traditionally called impression cytology, or conjunctival impression.

EYEPRIM™ solves all the issues related to this sampling technique and provides great sampling performances, in a reliable, reproducible, and user-independent manner.

Who is using it?

EYEPRIM™ is used by any organization – Contract Research Organizations, academic or private research centres, pharmaceutical companies – interested in improving the bio-molecular analysis of the ocular surface with a reliable sampling tool.

EYEPRIM™ is also used in routine clinical practice by ophthalmologists to sample the conjunctiva of patients in order to refine the diagnosis of their ocular surface with further analysis.

Analyses of samples:

Cytology: cytology analysis is possible with a suitable microscope after proper staining of the membrane.

Flow cytometry: cells collected with EYEPRIM™ can be analysed by flow cytometry once the cells have been detached from the membrane. A single EYEPRIM™ membrane is sufficient for such measurement.

Quantitative RT-PCR: EYEPRIM™ has especially great yield performances for ribonucleic acids (RNA) and allows the measurement of several biomarkers from a single membrane.

3D cytology is a patented analysis method (OcuPharm Diagnostics) for the study of goblet cells and goblet cells secretions. This technique is performed on EYEPRIM™ conjunctival impression sample, using a Laser Scanning Microscope.

Protein extraction: provides great protein recovery performances. Particular attention should be paid on the choice of extraction buffer depending on the analysis to be perform.

Membrane characteristics

<table>
<thead>
<tr>
<th>Shape</th>
<th>Scleral curvature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Limbal diameter</td>
</tr>
<tr>
<td>Surface</td>
<td>69 mm²</td>
</tr>
<tr>
<td>Type</td>
<td>Polyethersulfone, optimized for best yield</td>
</tr>
</tbody>
</table>

How to use?

1- Patient must look up or down according to the selected sampling area. No anaesthesia needed.

2- Position the device on the conjunctiva relatively to the limbus.

3- Bring the membrane onto the conjunctiva by pressing gently on the push-button. Hold from 2 to 3 seconds.

4- Release the pressure, then remove the device from the eye.

5- Eject the membrane with the sample into a container by pushing hard onto the push-button.

Ordering information:

Europe: Opia Technologies - Order: sales@opiatech.com - Information: contact@opiatech.com

Rest of the world: Opia Technologies - Information: contact@opiatech.com

Consult instructions for use. EYEPRIM™ is a Class I (sterile) medical device according to the directive 93/42/CEE, CE 0051 (IMQ)