The Sepax protocol software is an integral part of the Sepax system and provides a fully-automated method to separate the cellular product into its components, allowing a safe, reproducible and user independent procedure. CellWash package includes both SmartWash and CordWash protocols. SmartWash protocol is designed for washing peripheral blood stem cells and bone marrow, while CordWash protocol is dedicated to wash umbilical cord blood. Both washing procedures ensure removal of cellular debris, cryoprotectant solution after thawing and re-suspension into appropriate medium. Extended cell viability is ensured and cells are consequently ready for reinfusion or cultivation.

<table>
<thead>
<tr>
<th>Features</th>
<th>CordWash</th>
<th>SmartWash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processed initial volume</td>
<td>10 to 100 ml</td>
<td>50 to 880 ml</td>
</tr>
<tr>
<td>Selectable final volume</td>
<td>50 to 150 ml</td>
<td>50 to 200 ml</td>
</tr>
<tr>
<td>Average CD34* recovery</td>
<td>90%</td>
<td>94%</td>
</tr>
<tr>
<td>Average CD34* viability</td>
<td>98%</td>
<td>98%</td>
</tr>
</tbody>
</table>

**Specifics**
Step-by-step work flow

1. Preparation of single-use kit with chosen washing buffer
2. Connection of product bag to single-use kit
3. Installation of kit on Sepax device
4. Automated procedure, including
   - Primary dilution
   - Osmolarity balancing time
   - Sedimentation and initial product bag rinsing
   - Supernatant extraction
   - Cells resuspension
   - Cells extraction into final bag
5. With SmartWash, possibility to wash another bag with same kit (maximum 4 bags can be washed sequentially)
6. End washing
Protocols settings:

- Dilution ratio: defines the volume of washing solution used to dilute the initial product for osmolarity balancing.
- Traceability IDs: Possibility to use the traceability kit of the Sepax (barcode reader + printer) in order to trace specific identification criteria.
- Summary print-out: Possibility to print a report at the end of the cell washing procedure with the traceability kit of the Sepax (barcode reader + printer).
- Protocol available in: English, French, German, Spanish and Italian.

Single-use kit x protocol software matrix

<table>
<thead>
<tr>
<th>Kit/protocol</th>
<th>ReadyCell</th>
<th>GVR</th>
<th>NeatCell</th>
<th>CordWash</th>
<th>SmartWash</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS-470.1</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CS-490.1</td>
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<td>CS-600.1</td>
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<td>CS-900.2</td>
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</tbody>
</table>

References:

- Saccardi R. et al, Fully automated washing of cryopreserved PBSC in a multicenter study, EBMT Poster 2012
- Scerpa MC. et al, Automated washing of human progenitor cells: evaluation of apoptosis and cell necrosis, Transfusion Medicine, 2011
- Scerpa MC. et al, Efficacy of automatic DMSO washing in autologous stem cells transplantation, EBMT Poster 2011
- Nobles J. et al, Evaluation of an automatic method of washing cryopreserved cord blood units post thaw, AABB Poster 2010
- Dornsife R. et al, An automated umbilical cord blood unit (CBU) wash procedure using the Sepax® cell processing system provides high quality post-thaw yields from cryopreserved CBU, ISCT Poster 2010
- Blanquer M. et al, Evaluation of an automatic washing method for DMSO cryopreserved peripheral blood hematopoietic progenitors using the Sepax S-100, ASH Poster 2009

Order information

CellWash #14306
Packaging 1 box for each protocol including protocol on USB key and user guide for installation