B5 Cytochrome Purification

As a part of the CNRS (French National Center for Scientific Research), the mission of the molecular genetics center is to develop molecular genetics in every way, through genetics, biochemistry and structural biology. One of its applications is to purify B5 cytochrome through FPLC (Fast protein liquid chromatography) in the framework of a study dedicated to the expression of recombinant proteins.

The Minipuls evolution equipped with PVC tubing delivers 1 to 2mL/min to fill the column. Then it runs for 1 to 2 hours to transfer the sample of B5 cytochrome through the column at a maximum flowrate of 10mL/min and a back pressure up to 35psi. Because the molecule is red, when it fixes onto the vessels it is easily visible to the naked eye, and the flow can be stopped.

In this application it is particularly critical to provide a reproducible flow rate, and to have a pump made of resistant material to withstand the water and salt projections that inevitably occur when the columns are washed.

Mr Gilles TRUAN, researcher, has had previous good experience with Gilson and its reliable Minipuls 2 and 3 to perform this application. He is now completely satisfied of the Minipuls evolution.

“Definitely a very good improvement of the Minipuls product line; I have been used to the vertical Minipuls 2 and 3, so I had to get used to the new horizontally-fitted cartridges of the Minipuls evolution, but I must admit it is much more convenient like this! I’ve also noticed that the 6 rollers of the pump head are enough for my application.”

Mr Gilles TRUAN, researcher, French National Center for Scientific Research

<table>
<thead>
<tr>
<th>Required Minipuls evolution products</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Minipuls evolution - speed control module</td>
<td>F110701</td>
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<tr>
<td>MF1 pump head</td>
<td>F110705</td>
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<tr>
<td>PVC tubing, 3.16mm internal diameter</td>
<td>F117949</td>
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