1. About the protocol

The “AMPure_XP_Size_Selection” protocol on the IP-Star® is using the standard “Agencourt® AMPure® XP Beads” from Agencourt®. It allows you to perform size selection from 250bp to 500bp just with changing the amount of beads.

It provides flexibility to perform 1 to 16 samples in one run starting with 100 µl of sample. The whole protocol takes approximately 1h for 8 samples. At the end, you recover size selected products ready for amplification.

2. Workflow

Size Selection

Upper Cut beads incubation

Lower Cut beads incubation

Elution

Amplification (optional) ➔ Beads Clean-up (1x)

3. Material required

a. Reagents & kits

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
<th>Catalogue #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agencourt® AMPure® XP Beads</td>
<td>Beckman Coulter®</td>
<td></td>
</tr>
<tr>
<td>Fresh Ethanol 80%</td>
<td>Lab supplier</td>
<td></td>
</tr>
</tbody>
</table>

b. Consumables

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
<th>Catalogue #</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 µl tube strips (8 tubes/strip) + cap strips</td>
<td>Diagenode</td>
<td>C30020002</td>
</tr>
<tr>
<td>2 ml microtube</td>
<td>Diagenode</td>
<td>C30010014</td>
</tr>
<tr>
<td>Medium reagent container</td>
<td>Diagenode</td>
<td>C30020003</td>
</tr>
<tr>
<td>96 well microplates</td>
<td>Diagenode</td>
<td>C30080030</td>
</tr>
<tr>
<td>Tips (box)</td>
<td>Diagenode</td>
<td>C30040021</td>
</tr>
<tr>
<td>Tips (bulk)</td>
<td>Diagenode</td>
<td>C30040020</td>
</tr>
</tbody>
</table>
4. IP-Star setup

- Switch ON the IP-Star.
- Select “Protocols” icon and then click on “Library prep”.
- Under “Library prep”, select “AMPure_XP_Size_Selection”.

**Note:**
If you plan to run between 1 and 8 samples, chose “AMPure_XP_Size_Selection_08”
If you plan to run between 9 and 16 samples, chose “AMPure_XP_Size_Selection_16”

- Setup the exact number of samples that you want to process.

**Note:**
The Left Peltier Plock is now cooling down to 4°C to keep your samples cold.

- Setup all the plastics on the platform according to the screen layout.

- Fill TIP Rack 1 (and 2 if processing 16 protocol) with tips according to the screen.
- Fill Reagent Rack 1 & 2 with reagent containers according to the screen.
- Fill 96 plate 1 with 96 well microplates.
- Fill Left Peltier Blocks with 200 μl tube strips according to the screen.
5. Reagents & Samples setup

**Note:**
Allow “Agencourt® AMPure® XP Beads” to come at room temperature.

- Fill the **Left Peltier Block** with the samples according to the screen layout.
- Fill **20 µl of Samples** in lane 1 (and 2 if processing more than 8 samples).
- Fill up to 100µl with 80µl of resuspension buffer.

- Fill **Agencourt® AMPure® XP Beads** in lane 1 on **96 Plate 1** (and 7 if processing more than 8 samples) according to the required size following recommendations from the table.

  **Note:**
  Resuspend the beads with pipetting up and down several times before dispense them.

- Fill **freshly prepared Ethanol 80%** in the container on the **Reagent Rack 1**.
- Fill **Resuspension Buffer** in the container on **Reagent Rack 2**.
- Close the door and Run.

6. End

- Recover your samples on the **Left Peltier Block**