CA-cleaning

Start the Magnatrix Software and login as Facility. Select Illumina → Illumina_CA purification.

Fill in the following specifications in the interactive screen:

Sample volume: 50 µL
CA beads: 17 µL/µg DNA to be recovered
Binding time: 10 minutes
Precipitation buffer: 100 µL
EB: as required for further applications, but no less than 10 µL

Press forward.

Take a 96-well plate and fill it according to the instructions. Dilute DNA in EB if necessary to achieve volume. The precipitation solution is composed of PEG in 1.5 M NaCl and the concentration of PEG determines the length of fragments selected. A useful guideline is as follows:

PEG concentration in solution	Final PEG concentration	Lower size cut-off
16.6	10.4	180-250
15	9.4	250-300
14.1	8.8	300-350
13	8.1	430-470
12	7.5	480-520
11	6.9	600-800

All steps downstream of the use of beads should be conducted on a magnetic stand, to avoid bead carry-over, which inhibits most reactions, as well as affecting measurements.

Special precautions with reagents:

CA beads should not be vortexed. When not in use, keep them refrigerated.

80% EtOH should not be older than a week. If EtOH is to be kept overnight, ideally it should be placed at -20°C. When pipetting EtOH, ressuspend a few times until bubbles are no longer formed. This prevents dripping during pipetting.

PEG should be kept refrigerated and protected from light.