Adsorption Coating

If using hard beads (i.e. PMMA, Polystyrene) follow these guidelines. This procedure can be applied to most systems that have large molecules, generally greater than 20 kDa but some smaller molecules may work. Some systems may require altered coating and blocking conditions.

1. To 200 mg of hard beads (PMMA Part #: 440176; Polystyrene Part #: 442178) add 1.0 mL of coating solution. This solution consists of 30 µg/mL of molecule in a buffer, typically 1x PBS, pH 7.4, 0.02% NaN_3. The molecule should not be reconstituted or stored in buffer containing BSA. Make sure the beads are fully suspended in solution.

2. Rock/tumble bead vials at room temperature for 2 hours or overnight at 4°C.

3. Allow the beads to settle or pulse centrifuge at a low speed to pellet the beads. Discard the supernatant without disturbing the settled beads.

4. Add 1.0 mL of blocking solution. This solution consists of 10 mg/mL BSA in a buffer, typically 1x PBS, pH 7.4, 0.02% NaN_3. Make sure the beads are re-suspended in the blocking solution.

5. Rock/tumble bead vials at room temperature for 1 hour or overnight at 4°C.

6. Beads may be used immediately or stored in the blocking solution at 4°C. If particles will not be used within one week, store at -20°C.

Notes:

- Be sure to use the "Hard Bead Handling" template for timing setup of the beads. Keep all flow rates at or below 3 mL/min in the sample timing. Some customers have had success using 5 mL/min, but we do not recommend over 3 mL/min.

- If the molecule solution contains BSA, coating may be possible but higher concentrations could be necessary.