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Dimer Removal Guide for Zymo-Seq miRNA Library Kit

Adapter dimers in the final library will reduce usable sequencing reads. To avoid this, the Zymo-Seq miRNA Library Kit utilizes Dimer Removal Beads to capture and remove dimer products without requiring lengthy gel purification. It is important to avoid Dimer Removal Bead carryover because such carryover can lower the profile consistency among library replicates while increasing adapter dimers in the final libraries.

Here are a few tips to help minimize bead carryover:

- Centrifuge the sample for at least 10 seconds after completing the Dimer Removal thermal cycler program (Page 9 of the Zymo-Seq™ miRNA Library Kit Protocol, Section 2, Step 12).
- Place the sample on the magnetic stand and allow full migration of beads until the solution is completely clear.
- When transferring the clear supernatant to a new tube, avoid touching the magnetic bead pellet with the pipette tip.

If bead carryover occurs, reapply the sample to the magnetic stand until the supernatant is completely clear and repeat the separation steps (Page 9 of the Zymo-Seq™ miRNA Library Kit Protocol, Section 2, Steps 12-13) (Figure 1).

By following these tips, the risk of bead carryover can be minimized, enhancing the profile consistency and sequencing efficiency of the prepared miRNA libraries.

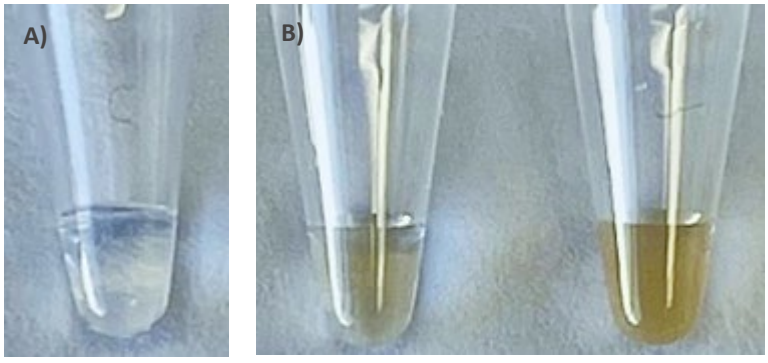

Figure 1. **A) Ideal clear solution with no obvious bead carryover after the Dimer Removal section**. **B) Examples of significant amounts of dimer bead carryover after the Dimer Removal section**. Note that it is important to visually inspect supernatant as bead carryover may be less obvious.