

## Schematic representation of library preparation and hybridization.

*Step 1. Library synthesis.* RNA reverse transcription was primed using oligonucleotide primers containing semi-degenerated part at the 3' end and universal sequence at the 5'end. Single strand cDNA was used as a template for complementary strand synthesis using the same oligonucleotide primers. At this step, the library represented overlapping dsDNA fragments flanked by the same universal sequence at both ends.

*Step 2. Library amplification and labeling.* For library amplification, we used PCR with the universal primers. Labeling of DNA was performed by incorporating biotinylated residuals of dU during amplification. The resulting biotin-labeled dsDNA library was next used for microarray hybridization.