

Materials List for:

Performing Custom MicroRNA Microarray Experiments

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Materials

Name	Company	Catalog Number	Comments
NCode Multi-Species miRNA Microarray Probe Set V2	Invitrogen	MIRMPS201	Designed based on the miRBase Release 9.0 (October 2006). It contains ~ 1,140 unmodified, 34-44 nt long oligonucleotides as probes for worm, fly, zebrafish, mouse, rat, and human miRNAs, and a number of internal control probes such as snoRNAs. The miRNA probes are doublets of the sequences complementary to mature miRNAs, hence the size of ~ 44 nt. For analysis one can focus on miRNAs from a particular genome(s) of interest.
Trizol	Invitrogen	15596018	We have also used enriched, small RNA fraction for labeling, although total RNA samples are faster and easier to prepare and to quantify and suitable for downstream applications such as mRNA analysis.
T4 RNA Ligase 1	New England Biolabs	M0204L	
Ulysis Alexa Fluor 647 Nucleic Acid Labeling Kit	Invitrogen	U21660	This kit or similar products can be used to label experimental RNA samples or a control RNA (instead of control DNA) as well.
5'-pCU-DY547-3'	Dharmacon	Custom made	Small RNA fraction can be similarly labeled by ligation.
CentriSep columns	Princeton Separations	CS-901	
GAPSII coated slide	Corning	40004	Other types of slides may be also used.
Microarray hybridization chambers	Corning	2551 or 40080	Other kinds of hybridization chambers and coverslips should also work. Using commercially available hybridization machines can reduce hybridization time significantly, e.g., to ~ 2 hours.
Lifterslips	Thermo Fisher Scientific, Inc.	25X60I-M5439-001-LS	
BlueFuse	BlueGenome		
GeneSpring	Agilent Technologies		