



microRNA OneArray® Products

- Up-to-date miRBase Annotation
- Unmatched Intraspot Homogeneity
- Triplicate Probe Redundancy
- Enhanced Performance with Kreatech ULS & Invitrogen mirVana labeling systems
- Excellent Array-to-Array Consistency

microRNA OneArray Content

Human v4 microRNA OneArray (HmiOA.4)

Each HmiOA.4 microarray contains 5,796 total features comprised of 1,884 unique microRNA (printed in triplicate) and 144 control probes. HmiOA.4 includes 100% of miRBase v18.0.

Mouse & Rat v4 microRNA OneArray (RmiOA.4)

Each RmiOA.4 microarray contains 4,230 total features comprised of 1,362 unique microRNA probes (printed in triplicate) and 144 control probes. RmiOA.4 has 100% of miRBase v18.0.

Plant v3 microRNA OneArray (PmiOA.3)

Each PmiOA.3 microarray contains 3,171 total features comprised of 1,018 unique microRNA probes (printed in triplicate) and 117 control probes. PmiOA.3 consists of 7 common plant research models using 100% of miRBase v17.0.

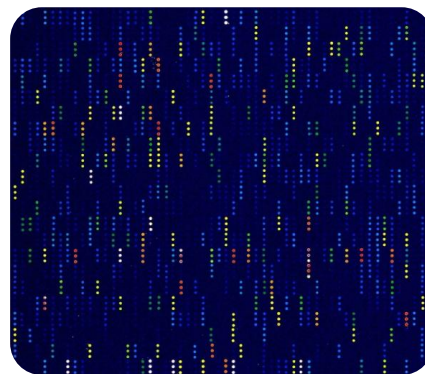
Human and Primate microRNA OneArray®		
Species	Common Name	Probes
<i>Homo sapiens</i>	human	1884
Mouse and Rat microRNA OneArray®		
Species	Common Name	Probes
<i>Mus musculus</i>	mouse	1129
<i>Rattus norvegicus</i>	rat	676
Plant microRNA OneArray®		
Species	Common Name	Probes
<i>Arabidopsis thaliana</i>	thale cress	211
<i>Brachypodium distachyon</i>	purple false brome	104
<i>Glycine max</i>	soybean	188
<i>Oryza sativa</i>	rice	350
<i>Sorghum bicolor</i>	sorghum	65
<i>Vitis vinifera</i>	grape vine	119
<i>Zea mays</i>	corn	200

Kreatech ULS Kit Highlights

Universal Linkage System (ULS) technology directly labels microRNA present in total RNA. ULS labeling is based on the stable binding properties of platinum(II) to form a dipolar bond, firmly coupling the fluorophore to microRNA.

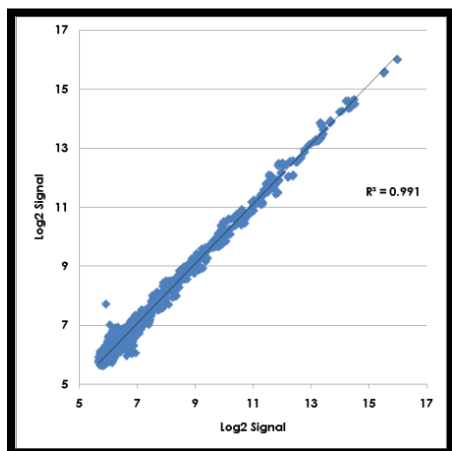
Key features of the ULS microRNA Labeling Kit

- 15 minute 2-step RNA labeling procedure
- No RNA enrichment required
- Labels all microRNA species, independent of modifications
- Size independent labeling of nucleic acids
- Non-enzymatic reactions produce consistent results



Array-to-Array Consistency

Our patented non-contact printing technology delivers outstanding array to array consistency. Our HmiOA.4 shows log2 intensity correlation $R^2 = 0.991$. HmiOA.4 was tested using reference liver total RNA.



Log2 signal Reproducibility of HmiOA.4

	A	B	C	D	E	F	G	H	I	J
A	1.000	0.991	0.986	0.993	0.988	0.987	0.990	0.977	0.990	0.990
B		1.000	0.986	0.992	0.987	0.986	0.987	0.975	0.991	0.990
C			1.000	0.989	0.981	0.984	0.983	0.969	0.989	0.986
D				1.000	0.986	0.994	0.991	0.975	0.996	0.993
E					1.000	0.980	0.983	0.971	0.985	0.985
F						1.000	0.989	0.973	0.992	0.990
G							1.000	0.976	0.988	0.989
H								1.000	0.972	0.973
I									1.000	0.993
J										1.000

Pairwise intensity correlation comparing 10 microarrays. Average signal $R^2 = 0.988$.

Array Performance

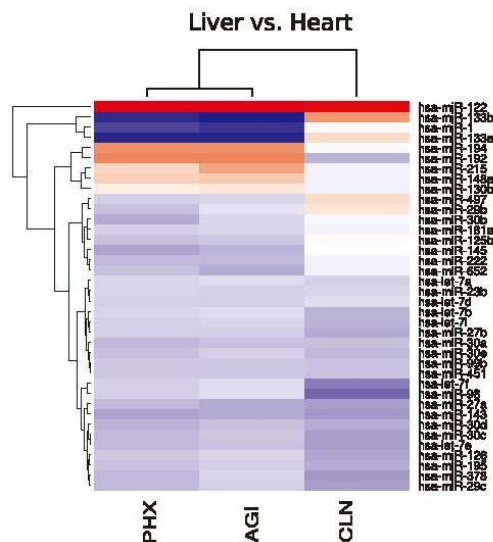
Cross-platform comparison study demonstrated good data conformity and specificity. microRNA expression profiles were obtained from reference heart and liver samples. Heart to liver expression ratios were calculated and a cluster analysis was performed.

Shown in the figure, Phalanx (PHX) and Agilent (AGI) Human microRNA microarrays were compared against reference sequencing data (CLN).

* Data sources

Agilent: GEO database GSE11879

Sequence data: Landgraf et al. Cell 2007 Jun 29; 129 (7) :1401.



Other Microarray Products & Services

- **Custom microarrays & OEM Service**
 - Select your content
- **microRNA Expression Service**
 - Microarray or qPCR assay
- **DNA Sequencing Service**
 - SimpleSeq 24-hour turnaround
- **Next-Gen Sequencing Service**
 - Illumina and Roche 454
- **Whole Genome OneArray**
 - **Human v5** - RefSeq r38 & Ensembl r56
 - **Mouse v2** - RefSeq r42 & Ensembl r59
 - **Rat** - RefSeq r42 & Ensembl r59
 - **Rice** - RGAP 6.1 and BGI v2008
 - **Yeast** - AROS v1.1 & YBOX v1.0
- **RNA Isolation & Purification**
 - Kits & Service



Power of OneArray®