

NimbleGen Zebrafish Gene Expression 385K Arrays

The most comprehensive and up-to-date zebrafish design

NimbleGen Zebrafish Gene Expression 385K microarrays enable you to accurately and conveniently perform whole-genome expression profiling on this important model organism. Constructed from a compilation of the latest builds of zebrafish transcripts and genome assemblies, the NimbleGen array interrogates the most comprehensive and up-to-date list of targets, providing the most complete and current gene expression knowledge for your genetics and developmental biology research.

Advantages

- Accurately analyze gene expression using the latest target sequence compiled from multiple sources, including the Ensembl Zv7 genome assembly.
- Achieve high specificity, sensitivity, and reproducibility using long (60mer), isothermal oligonucleotide probes.
- Utilize up to 12 probes per target on each 385K-probe array:
 - Complete coverage of the zebrafish transcriptome
 - Increased accuracy with multiple probes per target
- Take advantage of our full service (just send in your RNA samples) or process the arrays in your own lab using NimbleGen protocols and reagents.

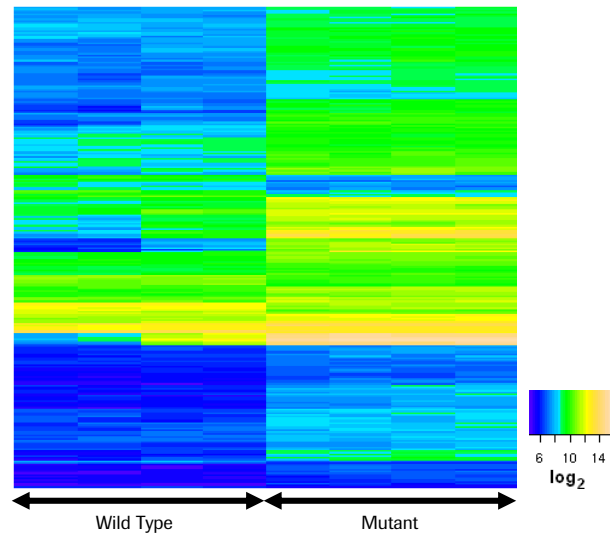


Figure 1: NimbleGen 385K Microarrays Accurately and Sensitively Detect Differentially Expressed Gene. Wild type and mutant zebrafish RNA samples were analyzed on NimbleGen Zebrafish Gene Expression 385K microarrays. The expression levels of the 260 genes that were most significantly differentially expressed between wild type (left four lanes) and mutant (right four lanes) are expressed as \log_2 in a heatmap.



The NimbleGen Zebrafish array yields high quality data for gene expression profile analysis. Its unique and advanced platform has facilitated our evaluation of complete zebrafish transcriptome activities during development and under varying genetic backgrounds.

Yi Zhou, Ph.D.
Director, Children's Hospital Boston Zebrafish Genome Project
Harvard Medical School

NimbleGen Zebrafish Gene Expression Microarray Performance

The superior quality of gene expression data obtained with NimbleGen Zebrafish array was demonstrated in collaboration with the Zhou and Zon groups at Children's Hospital Boston, Harvard Medical School. The sensitivity of the array is demonstrated by the wide signal dynamic range (\log_2 of 4 - 16, Figure 2), and the reproducibility is demonstrated by the high interarray correlations ($r^2 = 0.98$ or higher, Figure 3).

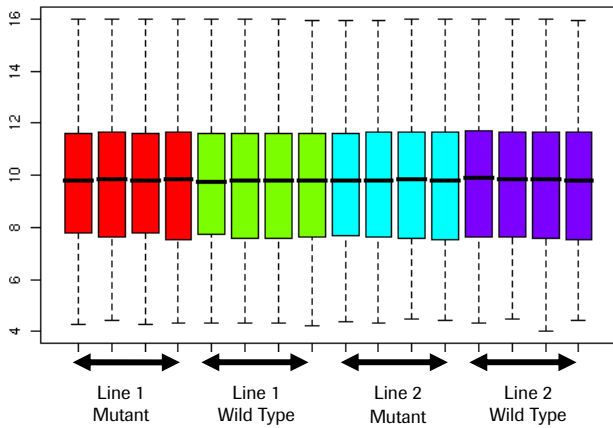


Figure 2: Sensitivity. Wild type and mutant RNA samples from two zebrafish lines were analyzed on NimbleGen Zebrafish Gene Expression 385K microarrays (4 biological replicates per sample). High sensitivity is demonstrated by the wide dynamic range (\log_2 of 4 - 16) of gene expression values on each array.

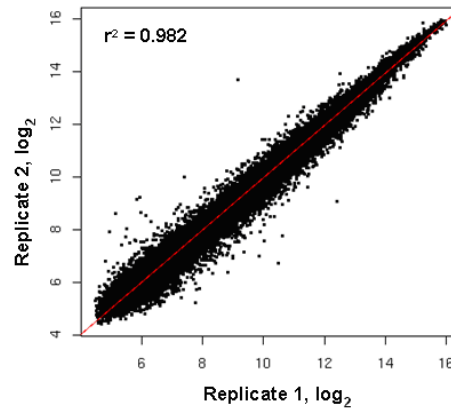


Figure 3: Reproducibility. Biological replicates of zebrafish RNA were hybridized to NimbleGen Zebrafish Gene Expression 385K microarrays. The pair-wise scatter plot of gene expression values (expressed as \log_2) shows high interarray correlations (routinely higher than 0.98) between the replicates.

NimbleGen Zebrafish Gene Expression 385K Microarray Specifications

Catalog design name / number	071105_Zv7_EXPR / A7141-00-01
Total probes	385,000
Probe length	60mer
Target genes	37,157
Probes per target gene	12
Feature size	16 μ m x 16 μ m
Array size	17mm x 13mm
Slide size	1" x 3" (25mm x 76mm) glass
Sequence sources	Ensembl 46 (August 2007, Zv7), RefSeq (September 2007), TIGR (Release 14.0), UniGene (Build 54), Vega 27, ZGC (August 2007)

Contact: Roche NimbleGen, Inc.

Toll-free in US: (877) NimbleGen / (877) 646-2534
 (608) 218-7600
 ngsales@nimblegen.com
 www.nimblegen.com



HIGH - DEFINITION GENOMICS™

© May 2008 Roche NimbleGen, Inc. All Rights Reserved.
 05331587001 • 05/08



Roche NimbleGen, Inc.
 500 S. Rosa Road
 Madison, WI 53719 USA