

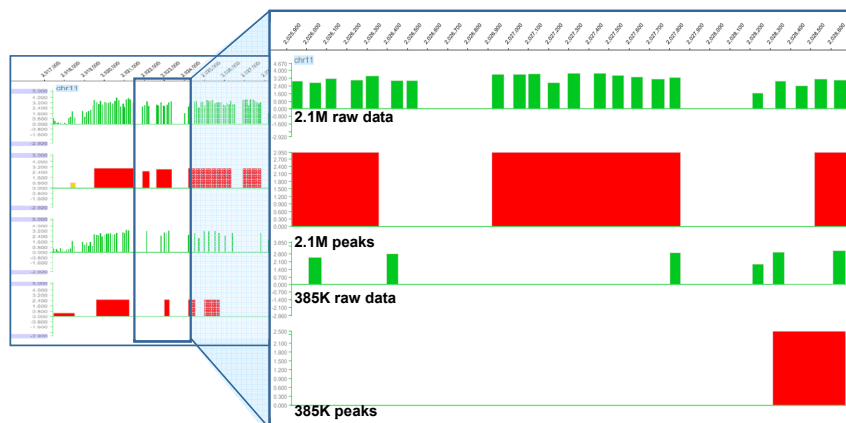
# NimbleGen ChIP-chip HD2 Whole-Genome Tiling and Deluxe Promoter Arrays

NimbleGen ChIP-chip HD2 (2.1M probe) arrays enable you to analyze transcription factor binding, interrogate chromatin structure, and discover novel DNA elements at high resolution and sensitivity. These high-density arrays offer the most comprehensive coverage of significant regulatory elements based on the latest genome builds at a considerable cost reduction per data point in comparison to other low-density platforms.

## Advantages of NimbleGen ChIP-chip 2.1M Arrays

- **Comprehensive Array Designs Cover All Your Needs**  
Choose from a range of catalog whole-genome tiling and deluxe promoter designs (Table 1). Or, tailor custom array designs to your specific experimental goals.
- **High-Density Probe Content Enables High-Resolution Mapping**  
Utilize 2.1 million probes to achieve high-resolution tiling of the whole genome. Precisely map protein binding sites and interrogate chromatin structure.

- **High Sensitivity and Specificity Provide Unparalleled Results**
  - Achieve high sensitivity and specificity with our long, oligonucleotide probes (50 - 75mer) in combination with our stringent hybridization protocol.
  - Routinely detect as little as 1.25- to 2-fold enrichment of the target binding site within the ChIP sample.
  - Eliminate interarray variation with our 2-color protocol for simultaneous analysis of enriched and control sample on one array.
- **Flexible Array Processing Options**  
Perform array experiments at your own laboratory or core facility using NimbleGen protocols and reagents. Alternatively, send your samples to us for processing in our full-service laboratory, results guaranteed.



**NimbleGen ChIP-chip 2.1M Array Performance.** ChIP reactions were performed to enrich for the repressive histone mark, tri-methylated histone H3 lysine 27 (me3-H3K27). Enriched and control (total genomic DNA) samples were amplified, labeled with Cy5 and Cy3, respectively, and hybridized to either a NimbleGen Human ChIP-chip 2.1M Deluxe Promoter array or a NimbleGen Human ChIP-chip 385K ENCODE array, and scanned using a 5µm scanner. The raw data were analyzed for peaks (significant regions of enrichment) using NimbleScan v2.4 software and data were visualized in SignalMap v1.9 software. Data shown are within the H19/IGF2 locus on chromosome 11, a region associated with repressive histone marks, such as me3-H3K27. The figure clearly demonstrates that the increased probe coverage of the HD2 platform resulted in increased resolution of called peaks when compared to the 385K platform.

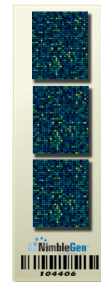
## NimbleGen ChIP-chip 2.1M Whole-Genome Tiling and Deluxe Promoter Arrays

**Table 1. Design and Ordering Information**

Whole-Genome Tiling Arrays								
Catalog Number	Organism	Build	Slides	Resolution	Comments			
C7257-SET-01	Human		10	100bp	<ul style="list-style-type: none"> <li>■ Human, mouse, and rat 10-slide sets: Tile through unique regions at 100bp spacing for a comprehensive, high-resolution view of transcription factor binding and chromatin structure.</li> <li>■ Human and mouse (Economy) 4-slide sets: Tile through unique regions at increased spacing (less resolution). An economical choice for studying whole-genome protein/DNA interactions.</li> </ul> <p><b>Note:</b> Individual slides from the 4- and 10-slide sets are available for purchase. See <a href="http://www.nimblegen.com/chip">www.nimblegen.com/chip</a> for details.</p> <ul style="list-style-type: none"> <li>■ <i>D. melanogaster</i> and <i>C. elegans</i> slides: Tile through unique regions at high resolution. An economical choice.</li> </ul>			
C7262-SET-01	Human (Economy)	HG18	4	205bp				
C7273-SET-01	Mouse		10	100bp				
C7278-SET-01	Mouse (Economy)	MM8	4	203bp				
C7290-SET-01	Rat	RN34	10	100bp				
C7245-00-01	<i>D. melanogaster</i>	DM5	1	55bp				
C6781-00-01	<i>C. elegans</i>	CE180	1	40bp				
Deluxe Promoter Arrays								
Catalog Number	Organism	Build	Promoter Upstream / Downstream Tiling	CpG Islands			miRNA Promoters	Comments
C7291-00-01	Human	HG18	7,250bp / 3,250bp	28,266	475 (-15kb through mature transcript)	Includes probes tiling through biologically significant ENCODE regions, such as HoxA, $\beta$ -globin, and Apo.		
C7244-00-01	Mouse	MM8	8,200bp / 3,000bp	15,963	249 (-20kb to 1kb)			

## NimbleGen ChIP-chip 2.1M Microarray Specifications

<b>Total probes</b>	2.1 million
<b>Probe length</b>	50 - 75mer
<b>Probe spacing</b>	Varies depending on organism
<b>Feature size</b>	13 $\mu$ m x 13 $\mu$ m
<b>Array size</b>	62mm x 14mm
<b>Slide size</b>	1" x 3" (25mm x 76mm) glass
<b>Sequence source</b>	UCSC Genome browser, NCBI



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