

# GeneChip® p53 Assay

## Analysis of the Entire Coding Region of the Human p53 Tumor Suppressor Gene (exons 2-11)

- Sense and anti-sense strand analysis in a single hybridization reaction
- Identification of missense mutations and single base deletions
- Detection of mutant p53 in a background of wildtype p53



### GeneChip® p53 Probe Array Design

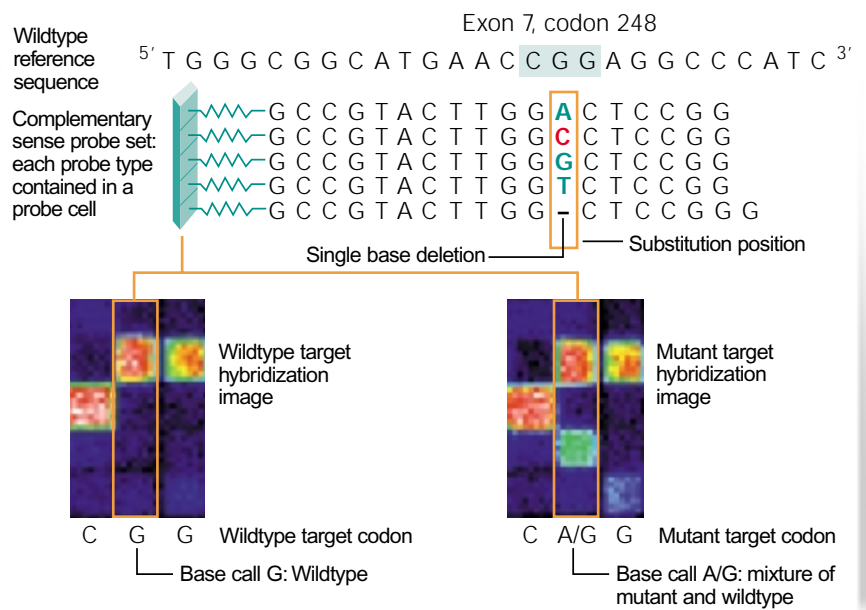


Figure 1

Probes on the array are arranged in sets of five. Each probe in the set is designed to be perfectly complementary to the reference sequence except for a mismatch position, called the "substitution position." At the substitution position, each of the four possible nucleotides (A,C,G,T) and a single base deletion are represented in the probe set. Assay conditions optimize hybridization of the fluorescently labeled DNA target to the probe that best matches its sequence. This hybrid yields a higher fluorescence intensity relative to the other four targets: probe hybrids in the set. There are probe sets complementary to every base in the target gene, so each base along the gene is examined for the presence of mutant sequence.

#### GeneChip® p53 Product Characteristics:

Bases of genomic DNA analyzed	1,262 bp
Time from purified DNA to data	4.5 hrs
Maximum steady state throughput*	5 reactions/hour, equivalent to 6,310 bp/hour

\*Maximum steady state throughput based on one GeneChip analysis system

## Microarray Suite Software for Instrument Control and Sequence Analysis

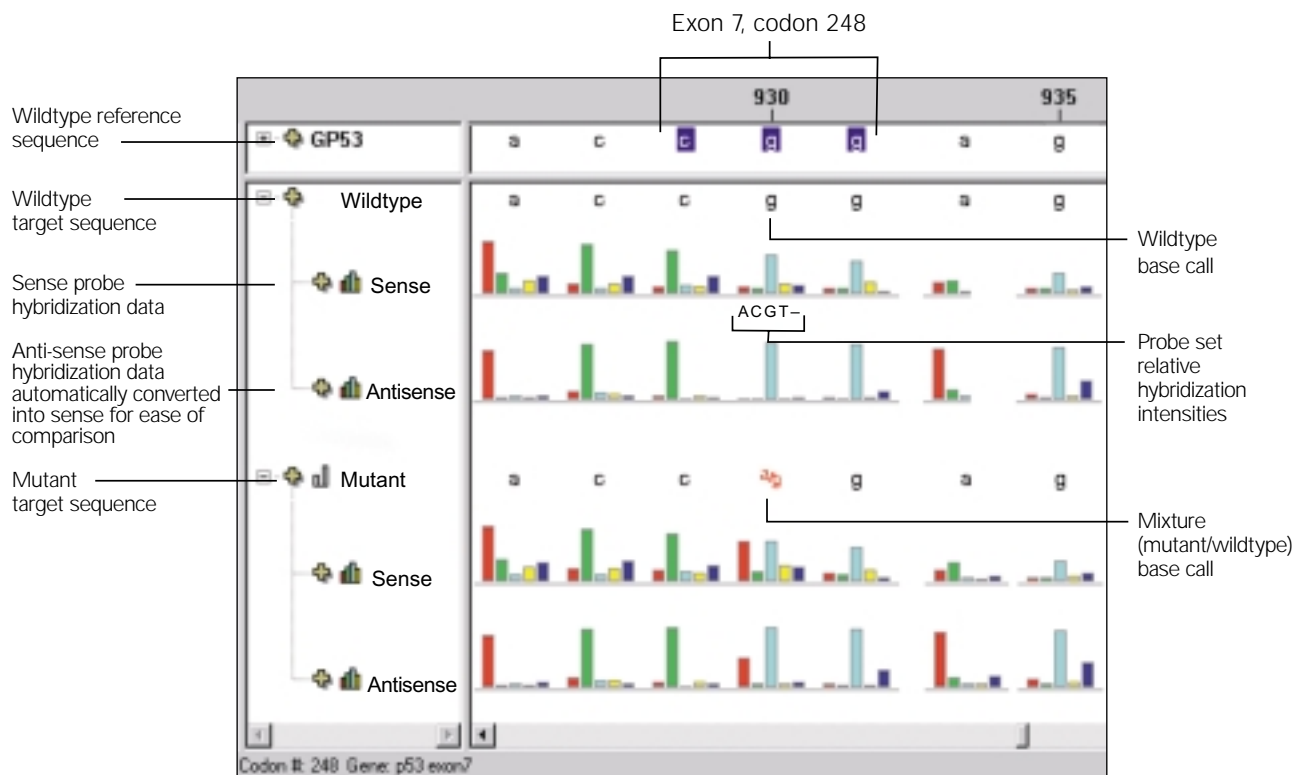


Figure 2. Microarray Suite Software performs the following major functions:

- Automates control of the scanner and GeneChip® Fluidics Station
- Acquires and processes hybridization intensity data
- Displays hybridization images
- Displays averaged hybridization intensity data
- Displays nucleotide and amino acid sequence information
- Facilitates inter-sequence analysis
- Prepares customizable summary report

### AFFYMETRIX, INC.

3380 Central Expressway  
 Santa Clara, CA 95051 USA  
 Tel: 1-888-362-2447 (1-888-DNA-CHIP)  
 Fax: 1-408-731-5441  
 sales@affymetrix.com  
 support@affymetrix.com

### AFFYMETRIX UK Ltd.,

Voyager, Mercury Park,  
 Wycombe Lane, Wooburn Green,  
 High Wycombe HP10 0HH  
 United Kingdom  
 Tel: +44 (0)1628 552550  
 Fax: +44 (0)1628 552585  
 saleseurope@affymetrix.com  
 supporteurope@affymetrix.com

www.affymetrix.com

### Ordering Information:

#### Probe Arrays

**900133 GeneChip p53 Arrays – One Box** (contains 5 arrays)




#### Reagents

**900132 GeneChip p53 Reagent Kits** (sufficient for 25 reactions)  
 Includes p53 Primer Set, Reference DNA, Fragmentation Set, and Control Oligonucleotide F1

**900129 GeneChip p53 Primer Set** (sufficient for 25 reactions)  
 PCR primers for multiplex human p53 gene amplification, exon 2-11

For research use only.  
 Not for use in diagnostic procedures.

Part No. 700132 Rev 6

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