

## Rapidly Investigate and Confirm Pharmacogenetic Biomarkers in *CYP2D6*

The iPLEX® CYP2D6 Panel, for use on the MassARRAY® System, is a set of 35 pre-designed SNP assays for use in the screening of polymorphisms in *CYP2D6*.

- ✓ Analyze 35 variants in the pharmacogenetically relevant *CYP2D6* gene.
- ✓ Perform high value CNV analysis using 5 CNV assays.
- ✓ Use as little as 30 ng of DNA per sample.

Agena Bioscience also offers the iPLEX PGx Pro Panel, covering 36 key genes known to influence drug metabolism, as well as panels for in-depth analysis of *CYP2C19* and *CYP2C9/VKORC1*.

Visit [www.agenabioscience.com](http://www.agenabioscience.com) for more information.

### HAPLOTYPES<sup>1</sup> INCLUDED IN THE iPLEX® CYP2D6 PANEL

\*1<sup>2</sup>, (\*2;\*28;\*32;\*55;\*59), (\*2A;\*31;\*51), \*2D, (\*2L;\*45B;\*46), \*2M, \*3, \*4, \*4B, \*4J, \*4K, \*4M, \*4N;P, \*5<sup>3</sup>, \*6, \*6C, \*7, \*8, \*9, (\*10A;\*37;\*54), (\*10B;\*47;\*49;\*52;\*72), \*11, \*12, \*14A, \*14B, \*15, \*17, \*18, \*19, \*20, \*21<sup>a</sup>, \*21B, \*27, \*29, \*30, \*34, \*35, \*36, \*38, \*39, \*40, \*41, \*42, \*44, \*45A, \*56A, \*56B, \*57, \*58, \*63, \*64, \*65, \*68, \*69, \*70, \*71, \*82, \*83, \*84

<sup>1</sup> Rare haplotypes may only be validated for wild type allele.

<sup>2</sup> Haplotypes represented by mutations not present in the CYP2D6 Panel are considered \*1. Also haplotypes that are indistinguishable are grouped with most likely haplotype in front.

<sup>3</sup> The CYP2D6 Panel only detects the number of *CYP2D6* copies present. It does not identify samples where a duplication of one allele AND a deletion of another allele is present (e.g., \*2x2/\*5 is called \*2/\*2).

For Research Use Only. Not for use in diagnostic procedures.





## THE MASSARRAY WORKFLOW

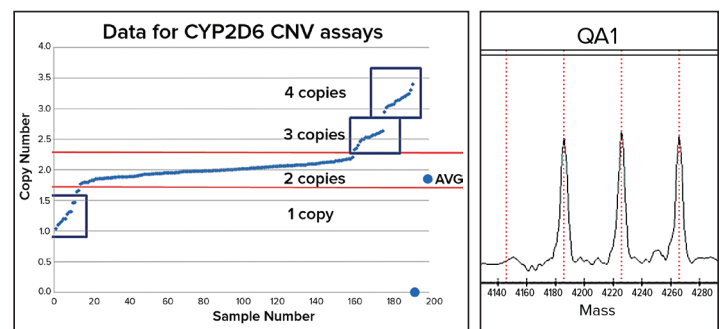
Each sample is subjected to PCR amplification and primer extension with the iPLEX CYP2D6 reagents. The extension products are dispensed onto a SpectroCHIP® Array and detected via MassARRAY mass spectrometry. After the sample run, an automated software report provides the calls and mutation frequency for each sample as well as a confidence score.

## THROUGHPUT

The iPLEX CYP2D6 Panel contains multiplexed assays in 3 wells, using 10 ng of input DNA per well. The panel can be run in 96-well format (32 samples per plate) or 384-well format (128 samples per plate). Thirty-two to 1,024 samples can be processed per day, providing flexibility in sample throughput and batching requirements.

## PANEL COMPONENTS

AMPLIFY		PCR Enzyme PCR Accessory Set CYP2D6 PCR Primers
EXTEND		iPLEX® Pro Reagent Set CYP2D6 Extend Primers
DETECT		SpectroCHIP® Array and Clean Resin
ANALYZE		MassARRAY® Analysis Software



**Left:** Example of copy number plot for 48 samples run in quadruplicate. All repeats show up in same copy number group.

**Right:** Picture of the WorkFlow Controls showing adequate addition of PCR, SAP, and Extend cocktails to the sample reaction.

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