

# CYP450 2C19

# SPOT ON INFINITI™


*The Automated Multiplexing MDx Solution*



## Product Design

- ▶ The INFINITI™ CYP450 2C19 Assay is designed to identify patients with select genetic variants of CYP450 2C19.
- ▶ The INFINITI CYP450 2C19 Assay utilizes the CYP450 2C19 Intellipac™, CYP450 2C19 Amp Mix and CYP 450 2C19 BioFilmChip™ Microarray.
- ▶ The INFINITI CYP450 2C19 Assay is automated by the 510(k) cleared INFINITI Analyzer.
- ▶ Clinical validation is currently in progress.

## Benefits

	VERSATILITY	◆	Multiplexed determination of 9 genetic variants on one BioFilmChip Microarray
	EFFICIENCY	◆	Customized reports allow for corresponding metabolic status
	AGILITY	◆	<i>Load N Go</i> automation with the INFINITI Analyzer
	INTEGRITY	◆	Replicate determinations on a single BioFilmChip Microarray ensure quality results

## Genetic Variants

19154G>A / *2	19294T>A/*7
17948G>A/*3	12711T>C/*8
1A>G/*4	12784G>A/*9
90033C>T/*5	19153C>T/*10
12748G>A/*6	

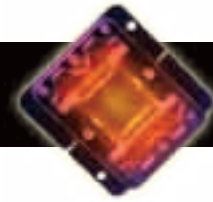
## Sample Type and Volume

0.2 – 2.0 ml of peripheral whole blood in EDTA (purple-top) tube  
50 ng DNA / reaction

## Product Information

Product No.	Product Name	Description	Pack Size
03 103	INFINITI CYP450 2C19 BioFilmChip	12 BioFilmChips / Magazine	4 Magazines / pack
03 203	INFINITI CYP450 2C19 Intellipac	24 tests / IntelliPac	2 Intellipacs / pack
03 303	INFINITI CYP450 2C19 Amp Mix	250 µl / vial	4 vials / pack

Please contact AutoGenomics to obtain product information and for product status updates.



## Clinical Relevance

- ▶ CYP450 2C19 metabolizes 15% of all prescribed drugs<sup>1</sup>
- ▶ CYP450 2C19 is involved in the metabolism and clearance of:<sup>1</sup>
  - Antidepressants (TCAs and SSRIs)
  - Anticonvulsants
  - Anxiolytics
  - Benzodiazepines
- ▶ Genetic polymorphisms of 2C19 (\*2, \*3) could be used to predict the altered enzyme activity and address the potential effects of metabolized drugs.<sup>1</sup>
- ▶ The allelic frequency of CYP2C19\*2 is about 30%, but has been reported to be as high as 75-85% in Asians and about 15% in Caucasians and African Americans.<sup>1</sup>
- ▶ The allelic frequency of CYP2C19\*3 allele has been reported as 6-10% in Asians and is very rare (<1%) in Caucasians and African Americans.<sup>1</sup>
- ▶ CYP2C19 \*2, \*3 variants are associated with poor metabolizers (PM) and are found in 1-3% of the Caucasian population and 13-23% of the Asian population.<sup>2</sup>

## Clinical Utility

- ▶ “Variants (polymorphisms) of CYP2D6 and CYP2C19 are associated with significant phenotypic variations that alter the rate of drug metabolism and may cause increased or decreased drug efficacy or adverse drug reactions.”<sup>3</sup>

## References

1. Blue Cross Blue Shield Association. Special report: Genotyping for cytochrome P450 polymorphisms to determine drug-metabolizer status. Technology Assessment Program. 2004; 19(9):1-34.
2. American College of Clinical Pharmacology. Pharmacogenomics: Application to Patient Care. AACCP, Kansas City, Mo: ACCP; 2004:262,263,290
3. LabCorp Capsule, Cytochrome P450 2D6 and 2C19 Managing medication dosing and reducing adverse drug reactions [http://www.labcorp.com/pdf/gen\\_LabCapsule\\_CYP450\\_2D6\\_2C19.pdf](http://www.labcorp.com/pdf/gen_LabCapsule_CYP450_2D6_2C19.pdf)