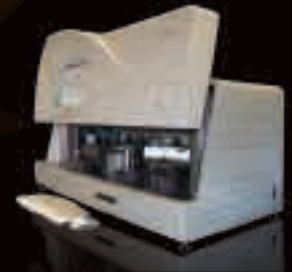


CYP 450 3A5

SPOT ON INFINITI™


The Automated Multiplexing MDx Solution



Product Design

- ▶ The INFINITI™ CYP450 3A5 Assay is designed to identify patients with select genetic variants of CYP450 3A5.
- ▶ The INFINITI CYP450 3A5 Assay utilizes the CYP450 3A5 Intellipac™, CYP450 3A5 Amp Mix and CYP450 3A5 BioFilmChip™ Microarray.
- ▶ The INFINITI CYP450 3A5 Assay is automated by the 510(k) cleared INFINITI Analyzer.
- ▶ Clinical validation is currently in progress.

Benefits

	VERSATILITY	◆	Multiplexed determination of 8 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

31611C>T/*1D	14690G>A/*6
27289C>A/*2	27131_27132insT/*7
6986A>G/*3	3699C>T/*8
3709_3710insG/*3B	18386G>A/*9

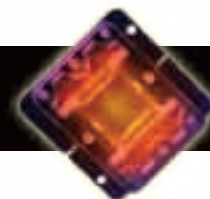
Sample Type and Volume

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
03 109	INFINITI CYP450 3A5 BioFilmChip	12 BioFilmChips / Magazine	4 Magazines / pack
03 209	INFINITI CYP450 3A5 Intellipac	24 tests / IntelliPac	2 Intellipacs / pack
03 309	INFINITI CYP450 3A5 Amp Mix	250 µl / vial	4 vials / pack

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



Clinical Relevance¹

- ▶ Cytochrome CYP450 3A5 is one of the most abundant hepatic microsomal enzymes involved in the xenobiotics metabolism.
- ▶ A large range of medications metabolized by CYPs are 3A5 substrates.
- ▶ The metabolic activity/efficiency of an individual is variably affected by the genetic polymorphisms which determine the enzyme expression levels.

Clinical Utility

- ▶ "CYP3A5 is polymorphically expressed in adults with readily detectable expression in about 10-20% in Caucasians, 33% in Japanese and 55% in African-Americans."¹
- ▶ "The primary causal mutation for its polymorphic expression (CYP3A5*3) confers low CYP3A5 protein expression as a result of improper mRNA splicing and reduced translation of a functional protein."¹
- ▶ "The CYP3A5*3 allele frequency varies from approximately 50% in African-Americans to 90% in Caucasians."¹
- ▶ Functionally, microsomes from a CYP3A5*3/*3 liver contain very low CYP3A5 protein and display on average, reduced catalytic activity towards midazolam."¹
- ▶ "In adults, CYP3A4 and CYP3A5 are the most important among the four CYP3A subfamily members for CYP3A-mediated drug metabolism, and because of the genetic diversity in the genes encoding these proteins, genotyping for CYP3A4 and CYP3A5 variants may be useful for prediction of total hepatic CYP3A activity."²

References

1. Lamba JK, Lin YS, Schuetz EG, Thummel KF. St. Jude Children's Research Hospital, Memphis, TN Genetic contribution to variable human CYP3A-mediated metabolism
2. Sharyn D. Baker, Ron H. N. van Schaik, Laurent P. Rivory, Albert J. ten Tije, Kimberly Dinh, Wilfried J. Graveland, Paul W. Schenk, Kellie A. Charles, Stephen J. Clarke, Michael A. Carducci, William P. McGuire, Fitzroy Dawkins, Hans Gelderblom, Jaap Verweij and Alex Sparreboom. Factor Affecting Cytochrome P-450 3A Activity in Cancer Patients