

# NAT2

# SPOT ON INFINITI™

*The Automated Multiplexing MDx Solution*



## Product Design

- ▶ The INFINITI™ NAT2 (N-acetyl transferase 2) Assay is designed to identify patients with NAT2 genetic variants in individuals.
- ▶ The INFINITI NAT2 Assay utilizes the NAT2 Intellipac™, NAT2 Amp Mix and NAT2 BioFilmChip™ Microarray.
- ▶ The INFINITI NAT2 Assay is automated by the 510(k) cleared INFINITI Analyzer.
- ▶ Clinical studies to support a 510(k) application are currently in progress.

## Benefits



### VERSATILITY



Multiplexed determination of 7 genetic variants on one BioFilmChip Microarray

### EFFICIENCY



Customized reports allow for corresponding metabolic status

### AGILITY



*Load N Go* automation with the INFINITI Analyzer

### INTEGRITY



Replicate determinations on a single BioFilmChip Microarray ensure quality results

## Genetic Variants

G191A, C282T, T341C, C481T, G590A, A803G, G857A

## Sample Type and Volume

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

## Product Information

Product No.	Product Name	Description	Pack Size
03 106	INFINITI NAT2 BioFilmChip	12 BioFilmChips/magazine	4 Magazines / pack
03 206	INFINITI NAT2 Intellipac	24 tests/IntelliPac	2 Intellipac / pack
03 306	INFINITI NAT2 Amp Mix	250 ul/vial	4 vials / pack

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



## Clinical Relevance

- ▶ NAT2 is a highly polymorphic enzyme that plays a key role in drug detoxification and elimination of many drugs. There are three relevant phenotypes of NAT2 (N-acetyltransferase 2): fast-- two copies of the wild type allele; intermediate-- one wild type allele; and slow acetylators-- two mutated alleles.<sup>3</sup>
- ▶ "Slow NAT2 genotype significantly affects the development of INH (isonicotinyl hydrazine)+RMP-induced hepatotoxicity. This suggests the possibility that NAT2 genotyping prior to medication may be useful in evaluating patients with high risk for INH+RMP-induced hepatotoxicity."<sup>2</sup>
- ▶ Phenotype prevalence in the US is approximately 50% slow and 40% intermediate acetylators compared with 10% slow acetylators reported in Asian population.
- ▶ "...NAT2 genotype may be an important factor in tumorigenesis of [colorectal cancer] CRC..."<sup>3</sup>

## Clinical Utility

- ▶ Identification of a patient's particular NAT2 acetylator phenotype may allow physicians to prescribe a specifically tailored dosage of medication for that patient.
- ▶ NAT2 allele identification reduces the risk of hepatotoxicity and may result in effective dose response.

## References

1. Brockton N, Little J, Sharp L, Cotton S.C.; American Journal of Epidemiology. 2000, Vol. 151, No. 9. p 846-861
2. Ohno M, et al. Int J Tuberc Lung Dis. 2001 Jan. 5(1):99-100.
3. M.L. Frazier, et al Cancer Research, Feb. 15, 2001, Vol.61, p.1269-1271