



Test Description

PROMETHEUS[®] TPMT Genetics helps classify patients as one of three genotypes: homozygous normal (wild type), heterozygous or homozygous recessive. Because each patient metabolizes thiopurines differently, the efficacy and toxicity of thiopurines can vary widely from patient to patient. Knowledge of the TPMT genotype may reduce time to response, allow physicians to individualize dosing, identify patients in whom thiopurine therapy should be avoided and help reduce the risk of leukopenia.

- A qualitative evaluation, to determine a patient’s genetic ability to produce the thiopurine methyltransferase (TPMT) enzyme
- **Specimen Requirements** – 5.0 ml whole blood in EDTA / Lavender Top Tube
- **Shipping Requirements** - Ambient or cold pack
- **Storage Stability** - 10 days ambient, 30 days refrigerated
- **Turn Around Time** – 2 business days from date of receipt

Test Information:

Catalog Number	Test Name	Assay	Reference Value	Result Identifier*
3300	TPMT Genetics	Genotype	Alleles present are associated with Normal Enzyme Activity	A00004
			TPMT*1/TPMT*1	

* Result identifier provided for use in HL7 applications.

Laboratory Description

- Prometheus is located in San Diego, CA. **Tax ID#** 33-0685754 **NPI#** 1073642641.
- Licensed in several states including New York and California.
- This test was developed and its performance characteristics determined by Prometheus Laboratories Inc. It has not been cleared or approved by the U.S. Food and Drug Administration. Prometheus Laboratories Inc. is a CAP-accredited CLIA laboratory.

CPT Codes (as applied by Prometheus)

- **81401**, TPMT genetics

Literature References

- Lennard, L. et al., The Clinical Pharmacology of 6-Mercaptopurine. *European Journal of Clinical Pharmacology*. Vol.43, 1992, p 329-339.
- Yates, C. et al., Molecular Diagnosis of Thiopurine S-Methyltransferase Deficiency: Genetic Basis for Azathioprine and Mercaptopurine Intolerance. *Annals of Internal Medicine*, Vol. 126, No.8, April 1997, p608-614.
- Relling, M.V., et al., Clinical Pharmacogenetics Implementation Consortium Guidelines for Thiopurine Methyltransferase Genotype and Thiopurine Dosing., *Clin. Pharmacol. Ther.* 89, 387-391 (2011)