
Lab Dept: Chemistry

Test Name: TPMT GENOTYPE

General Information

Lab Order Codes: TGEN

Synonyms: Prometheus TPMT Genetics; Thiopurine S-methyltransferase Genetics

CPT Codes: 81401 – Molecular pathology, Level 2

Test Includes: A qualitative evaluation, to determine a patient's ability to produce thiopurine methyltransferase enzyme. Classifies patients into one of three genotypes; normal (wild type), heterozygous or homozygous recessive.

Logistics

Test Indications: 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 risk of leukopenia.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Prometheus Therapeutics and Diagnostics (Prometheus Test: 3300)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 days from receipt at reference lab

Special Instructions: N/A

Specimen

Specimen Type: Whole blood

Container: Lavender top (EDTA) tube

Draw Volume: 5 mL blood

Processed Volume: Same as Draw Volume

Collection:	Routine venipuncture
Special Processing:	Lab Staff: Do Not Centrifuge. Store specimen at ambient temps before shipping. Stable for 10 days at ambient temperatures and 30 days at 2-8 degrees centigrade.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range: TPMT*1/TPMT*1 – Alleles present are associated with Normal Enzyme Activity

Critical Values: N/A

Limitations: N/A

Methodology: Isolation/Extraction of nucleic acid, Amplification of nucleic acid for three different DNA sequences, Nucleic acid probe

References: [Prometheus](#) November 2017

Updates: 3/14/2011: CPT update for testing from Prometheus
11/26/2013: CPT update
11/8/2017: Processing update