
Lab Dept: Chemistry

Test Name: THIOPURINE METABOLITES

General Information

Lab Order Codes: P6MP

Synonyms: 6-thioguanine; 6-methylmercaptopurine; Thiopurine therapy; Propredict 6MP, 6TG; Imuran metabolite

CPT Codes: 82542 - Column chromatography, includes mass spectrometry, if performed, non-drug analytes, not elsewhere specified, qualitative or quantitative, each specimen

Test Includes: 6-thioguanine (6-TGN) and 6-methylmercaptopurine (6-MMPN) reported in pmol/8x10⁸RBC.

Logistics

Test Indications: Provides red blood cell (RBC) levels of 6-thioguanine (6-TG) and 6-methyl-mercaptopurine (6-MMP). These target levels help monitor a patient's metabolism of thiopurine drug therapy.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Clinic Laboratories (Mayo Test: THIO)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days

Special Instructions: N/A

Specimen

Specimen Type: Whole blood

Container: Lavender top (EDTA) tube

Draw Volume: 3 mL (Minimum: 1.5 mL) blood

Note: Submission of the Minimum volume will not allow repeat analysis. In some situations, a Minimum specimen volume may result in a QNS result, requiring a second sample to be collected.

Processed Volume: Same as Draw volume

Collection: Routine venipuncture

Special Processing: Lab Staff: Store and ship refrigerated.
The blood is stable for 8 days at 2-8°C.

Patient Preparation: None

Sample Rejection: Specimens other than whole blood, frozen specimens, mislabeled or unlabeled specimens; gross lipemia; gross hemolysis; gross icterus, clotted

Interpretive

Reference Range:	Metabolite:	Reference Range pmol/8x10⁸RBC:
	6-TGN	235 - 450
	6-MMPN	< or =5700

Critical Values: N/A

Limitations: N/A

Methodology: High Pressure Liquid Chromatography (HPLC)

References: [Mayo Clinic Laboratories](#) July 2020

Updates: 3/25/2004: Test moved from a direct send to Prometheus Laboratories, Inc. to MML forward to Prometheus Laboratories, Inc.
1/26/2016:CPT update
7/23/2020: Test moved from Prometheus to internal Mayo test.