

**Reporting Title:** TPMT Activity Profile, RBC  
**Performing Location:** Mayo Clinic Laboratories - Rochester Main Campus

**Specimen Requirements:**

**Patient Preparation:** Thiopurine methyltransferase (TPMT) enzyme activity can be inhibited by several drugs and may contribute to falsely low results. Patients should abstain from the following drugs for at least 48 hours prior to TPMT testing: naproxen (Aleve), ibuprofen (Advil, Motrin), ketoprofen (Orudis), furosemide (Lasix), sulfasalazine (Azulfidine), mesalamine (Asacol), olsalazine (Dipentum), mefenamic acid (Ponstel), trimethoprim (Proloprim), methotrexate, thiazide diuretics, and benzoic acid inhibitors.

**Container/Tube:**

**Preferred:** Lavender top (EDTA)

**Acceptable:** Green top (sodium or lithium heparin), dark blue top (metal free sodium heparin), or non-centrifuged plasma gel tubes

**Specimen Volume:** 5 mL

**Collection Instructions:** Send whole blood specimen. **Do not centrifuge.**

**Forms:**

1. **New York Clients-Informed consent is required.** Document on the request form or electronic order that a copy is on file. The following documents are available:  
-[Informed Consent for Genetic Testing](#) (T576)  
-[Informed Consent for Genetic Testing-Spanish](#) (T826)
2. If not ordering electronically, complete, print, and send [Gastroenterology and Hepatology Test Request](#) (T728) with the specimen

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	6 days	
	Ambient	6 days	

**Result Codes:**

Result ID	Reporting Name	Type	Unit	LOINC®
48038	Interpretation	Alphanumeric		59462-2
48034	6-Methylmercaptapurine	Alphanumeric	nmol/mL/h	91141-2
48035	6-Methylmercaptapurine riboside	Alphanumeric	nmol/mL/h	91142-0
48036	6-Methylthioguanine riboside	Alphanumeric	nmol/mL/h	91143-8
48037	Reviewed By	Alphanumeric		18771-6

LOINC® and CPT codes are provided by the performing laboratory.

**Supplemental Report:**

No

CPT Code Information:

84433

Reference Values:

- 6-Methylmercaptopurine (normal): 3.00-6.66 nmol/mL/h
- 6-Methylmercaptopurine riboside (normal): 5.04-9.57 nmol/mL/h
- 6-Methylthioguanine riboside (normal): 2.70-5.84 nmol/mL/h