Lab Dept: Chemistry

Test Name: TROPONIN T - 5TH GENERATION, PLASMA

General Information

Lab Order Codes:	TRPS
Synonyms:	NA
CPT Codes:	84484 – Troponin, quantitative
Test Includes:	Troponin T – 5th Generation level reported in ng/L.

Logistics

Test indications:	● Aiding in the exclusion of the diagnosis of acute coronary syndrome in a single plasma specimen. ● Aiding in the diagnosis of acute coronary syndrome ● Monitoring acute coronary syndromes and estimating prognosis ● Possible utility in monitoring patients with nonischemic causes of cardiac injury
Lab Testing Sections:	Chemistry - Sendouts
Referred to:	Mayo Clinic Laboratories (Mayo test: TRPS)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 2 days
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	Green (Lithium heparin) tube
Draw Volume:	3 mL (Minimum: 1.5 mL) blood
Processed Volume:	1 mL (Minimum: 0.5 mL) plasma

Collection: Routine blood collection

Special Processing: Lab Staff: Specimen should be centrifuged and processed within 2 hours of collection. Remove plasma aliquot into a screw-capped plastic vial. Store and ship frozen.

Patient Preparation: N/A

Sample Rejection: Gross hemolysis; mislabeled or unlabeled specimens

Interpretive

Reference Range:

Males:	< or =15 ng/L
Females:	< or =10 ng/L

Interpretation: Values for healthy adults, based upon available literature and clinical guidelines, are 10 ng/L or less for women and 15 ng/L or less for men.

For patients who present with suspected acute coronary syndromes, the troponin T values greater than reference interval with a rising (> or =10 ng/L over 2 hours or > or =12 ng/L over 6 hours) pattern are highly suggestive of acute cardiac injury. Decreasing values are indicative of recent cardiac injury. Serial measurement is highly recommended for the diagnosis or exclusion of acute coronary syndromes.

Troponin T values greater than the reference interval are associated with adverse events in patients with ischemic heart disease and many other clinical situations. Clinical judgment is necessary to distinguish patients who have ischemic heart disease from those who have not.

Critical Values: N/A

Limitations: As with all markers of cardiac injury, elevations of cardiac troponin T (cTnT) do not in and of themselves indicate the presence of an ischemic mechanism. Many other disease states can be associated with elevations of cTnT via mechanisms different from those that cause injury in patients with acute coronary syndromes. These include: trauma including confusion, ablation, pacing; congestive heart failure; pulmonary embolism; renal failure; and myocarditis.

Methodology: Electrochemiluminescent Immunoassay

References: Mayo Clinic Laboratories (August 2020)