

LAB747 Troponin I, High Sensitivity

BMC, CRH, LFH, OCH, FTT, FOX

Performing Location(s)

BMC, CRH, LFH, OCH, FTT, FOX

Specimen Type

Ordered alone or as STAT: Plasma

Any priority other than STAT: Serum

Preferred Container

Ordered alone or as STAT: Light Green top tube

Any priority other than STAT: Gold top tube

Minimum Volume to Submit for Testing

0.5 mL Plasma or Serum

Storage Requirements

Sample tubes should be centrifuged within 2 hours of collection followed by transfer of the plasma/serum to a labeled plastic, aliquot tube.

Place a "Plasma" sticker on the aliquot tube.

See Causes of Rejection for temperature requirements.

Transportation Needs

Deliver specimen to laboratory within 1 hour of collection if unspun.

If not possible see "storage Requirements".

Causes for Rejection

Mislabeled or unlabeled specimen

Less than 50% draw for vacutainer tubes

> 48 hours refrigerated

> 4 hour room temperature

> 6 months frozen

Hemolysis > 4000 mg/dL HgB

Lipemia > 3000 mg/dL Trig

Bilirubin > 40 mg/dL Bili

EDTA, NaF, Citrate, Oxalate

Reference Values

Gender	Reference Range	Units
Male	≤ 20.0	pg/mL
Female	≤ 15.0	pg/mL
Critical Value	>100	pg/mL

The normal range represents the 99th percentile of patients without cardiac injury. IFCC guidance states high sensitivity assays must have analytical imprecision $\leq 10\%$ CV at the 99th percentile URL of healthy population. This assay has 10% CV limit at 6 pg/mL

A sequential sampling protocol is recommended. Serial samples from a patient with a myocardial injury taken at 6-8 hour intervals over the first 48 hours will result in the classic rise and fall in concentration. Sampling at 1-2 hrs after initial presentation may facilitate early identification of AMI.

Additional Information

High sensitivity troponin provides >99% confidence in ruling out AMI in patients with values below the upper reference limit.

hsTroponin identifies $\geq 94\%$ of true AMI patients within 1-3 hrs after presentation. Allows physicians to interpret small changes in borderline elevations for diagnosis and treatment.

Very low levels of hsTroponin on presentation or lack of any change and persistently normal hsTroponin values over 1-2 hr period after presentation can exclude acute myocardial injury and MI.

Available STAT

Yes

Methodology

Beckman AU/Dx/Access Series

CPT Code

84484