
Lab Dept: Coagulation

Test Name: HEPARIN NEUTRALIZATION

General Information

Lab Order Codes: HEPN

Synonyms: Heparin Removal; Hepzyme®

CPT Codes: 85525 – Heparin neutralization

Test Includes: N/A

Logistics

Test Indications: Useful for ruling out heparin contamination as being responsible for abnormal results of the PT, PTT, TT, Factor assays and other special coagulation studies.

Useful for removing heparin from coagulation samples drawn through a heparinized line, especially in NICU patients.

Used to evaluate a patient's liver function while on heparin therapy.

Lab Testing Sections: Coagulation

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours; Testing is performed in Minneapolis and St. Paul Laboratories.

Turnaround Time: 2 hours

Special Instructions: Ordering heparin removal is not to be used in lieu of obtaining the best sample possible from a non-heparinized line or venipuncture.

Specimen

Specimen Type: Whole blood

Container: Light Blue top tube (Buffered Na Citrate 3.2%)

Draw Volume: 1.8 mL blood (in 2 mL tube) or 2.7 mL blood (in a 3 mL tube).

Processed Volume:	0.5 – 1.0 mL plasma
Collection:	<ul style="list-style-type: none"> • A clean venipuncture is essential, avoid foaming. • Entire sample must be collected with single collection, pooling of sample is unacceptable. • Capillary collection is unacceptable. • Patient's with a hematocrit level >55% must have a special tube made to adjust for the hematocrit; contact lab for a special tube. • Mix thoroughly by gentle inversion. Deliver immediately to the laboratory at room temperature via courier or pneumatic tube. <p>Off campus collections:</p> <ul style="list-style-type: none"> • Follow instructions for individual tests ordered.
Special Processing:	Lab Staff: Follow instructions for individual test ordered.
Patient Preparation:	None
Sample Rejection:	Improper tube; clotted specimen; under-filled tube; heparin assay specimen; mislabeled or unlabeled specimen

Interpretive

Reference Range:	N/A
Critical Values:	N/A
Limitations:	Up to 2.0 IU/mL heparin can be removed from plasma to test a PT, PTT and FIB. TT and factor assay plasma is limited to 1.0 IU/mL. Therapeutic heparin cannot be separated from heparin contamination.
Methodology:	Enzyme inhibition (Hepzyme®)
References:	Keller FG, et al (1998) The Use of Heparinase to Neutralize Residual Heparin in Blood Samples Drawn Through Pediatric Indwelling Central Venous Catheters, J Pediat 132:165
Updates:	9/15/2014: Off Campus collection info added. 7/18/23: Updated testing to Minneapolis and St. Paul labs.