

# Antithrombin III Activity and Antigen

Test ID: 7017

CPT: 85300, 85301

## Clinical Significance

### Antithrombin III Activity and Antigen -

Aids in characterization of Antithrombin deficiency (AT, previously referred to as Antithrombin III) which is associated with increased thrombotic risk. Type I deficiency is characterized by reduction in activity and antigen levels simultaneously. With type II deficiency, activity levels are lower in comparison to the antigen levels (dysfunctional protein). Acquired deficiency, more common than inherited defects, can occur due to: liver disease, nephrotic syndrome, heparin therapy, disseminated intravascular coagulation (DIC), sepsis, and L-asparaginase chemotherapy.

Anticoagulant Interference: Expected impact by therapeutic levels (potential interference depends upon drug concentration): Warfarin: no effect; Heparin (UFH or LMWH): no effect to decrease (UFH may decrease levels physiologically but no assay interference); Dabigatran or Argatroban (Thrombin Inhibitors): may falsely increase activity levels; Rivaroxaban, Apixaban, Edoxaban (Factor Xa Inhibitors): no effect.

## Test Details

**Components:** Antithrombin III Activity and Antigen

**Methodology:** Chromogenic Substrate •  
Immunoturbidimetric

## Reference Range

### Antithrombin III Activity

1 day-1 month	41-108 % normal
31 days-2 months	50-120 % normal
3-5 months	73-120 % normal
≥6 months	80-135 % normal

### Antithrombin III Antigen

80-120 % normal

## Container

3.2% sodium citrate (light blue-top) tubes (x2)

## Transport Temperature

Frozen

## Specimen(s)

1 mL frozen platelet-poor plasma  
Minimum Volume: 0.5 mL

## Specimen Stability

Room temperature: Unacceptable  
Refrigerated: Unacceptable  
Frozen: 30 days

## Reject Criteria

Hemolysis • Grossly lipemic •  
Grossly icteric

## Days Performed

## Collection Instructions

Please submit a separate, frozen vial for each special coagulation assay ordered. Draw blood in a light blue-top tube containing 3.2% sodium citrate, mix gently by inverting 3-4 times. Centrifuge 15 minutes at 1500 g within one hour of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial(s). **Freeze immediately and transport on dry ice.**

\*The CPT codes provided are based on AMA guidance and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payer being billed.