
Lab Dept: Chemistry

Test Name: AST

General Information

Lab Order Codes: AST

Synonyms: Aspartate Aminotransferase; SGOT; Serum Glutamic Oxaloacetic Transaminase

CPT Codes: 84450 - Transferase; aspartate amino (AST) (SGOT)

Test Includes: Aspartate aminotransferase concentration reported in U/L.

Logistics

Test Indications: The aminotransferases constitute a group of enzymes that catalyze the interconversion of amino acids and 2-oxo-acids by transfer of amino acids. AST and ALT are the two enzymes of greatest clinical significance. Elevated AST levels are found in hepatic disease, myocardial damage, pulmonary emboli, muscle injuries, muscular dystrophy, hemolytic disease, acute pancreatitis, or gangrene.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 hours

Special Instructions: N/A

Specimen

Specimen Type: Whole blood

Container: **Preferred:** Green top (Li Heparin) tube
Alternate: Red, marble or gold top tube or Green (NaHep) tube

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL plasma/serum

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|-----------------------------|---|
| Collection: | Routine blood collection |
| Special Processing: | Lab Staff: Centrifuge specimen, transfer serum/plasma into plastic sample cup. Analyze sample immediately or store at refrigerated temperatures for up to 7 days. |
| Patient Preparation: | None |
| Sample Rejection: | Mislabeled or unlabeled specimen; gross hemolysis |

Interpretive

Reference Range:

| Reference ranges by Method: | |
|------------------------------------|--------------|
| Method Abbott | |
| 0 – 14 days: | 32 – 162 U/L |
| 15 days – 364 days: | 20 – 67 U/L |
| 1 year – 6 years: | 21 – 44 U/L |
| 7 – 11 years: | 18 – 36 U/L |
| 12 – 18 years female: | 13 – 26 U/L |
| 12 – 18 years male: | 14 – 35 U/L |
| Adult: | 5 – 34 U/L |

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| Critical Values: | N/A |
| Limitations: | Hemolysis of the sample falsely increases the AST concentration. |
| Methodology: | ABBOTT: Enzymatic (NAOH without p5-p7) |
| References: | <p>CLSI-based transference of the CALIPER database of pediatric reference intervals from Abbott to Beckman, Ortho, Roche and Siemens Clinical Chemistry Assays, Clinical Biochemistry 46 (2013) 1197-1219</p> <p>Pediatric Reference Ranges (2007), 6th Edition, Steven J Soldin, Carlo Brugnara, Edward C Wong, AACC Press, 7/1/2007</p> <p>Biorad Liquichek Unassayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618</p> <p>Biorad Multiqual Assayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618</p> |

Architect AST Pkg Insert, Abbott Laboratories Diagnostics Division,
Abbott Park, IL 60064, March 2017

Alinity AST Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott
Park, IL 60064, February 2018

Clinical Significance, Dade Behring Inc., Glasgow Business Community,
Mailbox 531, P.O. Box 6101, Newark, Delaware 19714

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc,
Hudson, OH, 5th Edition

Updates:

2/17/2005: Critical value previously listed >500 U/L.

8/17/2015: Method and ref range update

2/8/2016: Update alt tube types

10/18/2019: New backup instrumentation and related reference ranges

11/9/2020: Method VISTA retired, references update.