

# Alanine Aminotransferase (ALT)

**CPT Code:** 84460

**Order Code:** C112

**ABN Requirement:** No

**Synonyms:** ALT; Serum Glutamate Pyruvate Transaminase; SGPT

**Specimen:** Serum

**Volume:** 0.5 mL

**Minimum Volume:** 0.2 mL

**Container:** Gel-barrier tube (SST, Tiger Top)

## Collection:

1. Collect and label sample according to standard protocols.
2. Gently invert tube 5 times immediately after draw. DO NOT SHAKE.
3. Allow blood to clot 30 minutes.
4. Centrifuge for 10 minutes.

**Transport:** Store serum at 2°C to 8°C after collection and ship the same day per packaging instructions included with the provided shipping box.

## Stability:

**Ambient (15-25°C):** 3 days

**Refrigerated (2-8°C):** 1 week

**Frozen (-20°C):** not acceptable

**Causes for Rejection:** Improper labeling; samples not stored properly; samples older than stability limits; hemolyzed specimens

**Methodology:** Photometric

**Turn Around Time:** 1 to 3 days

**Reference Range:**

**Clinical Significance:** Alanine Aminotransferase (ALT) measurements are

particularly useful in the diagnosis and management of certain liver diseases, e.g., viral hepatitis and cirrhosis. ALT activity in tissue is generally much lower than aspartate aminotransferase (AST) activity and is found in highest concentrations in the liver. Significant elevations of ALT occur only in diseases of the liver. ALT is often measured in conjunction with AST to determine whether the source of the AST is the liver or the heart. ALT is normally not elevated in cases of myocardial infarction, i.e., a normal ALT, in conjunction with an elevated AST, tends to suggest cardiac disease. However, slight elevations of ALT may occur if an infarct destroys a very large volume of heart muscle.

**Limitations:** Contamination with erythrocytes will elevate results. Calcium dobesilate and Isonizid can cause artificially low ALT results at therapeutic concentrations. Furosemide can cause artificially high ALT results at therapeutic concentrations. Cyanokit (Hydroxocobalamin) may cause interference with results. In very rare cases gammopathy, in particular type IgM (Waldenstrom's macroglobulinemia), may cause unreliable results.

*The CPT codes provided are based on AMA guidelines 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.*