

Vitamin B1 (Thiamine), Plasma/Serum, LC/MS/MS

CPT Code: 84425

Order Code: 90353

ABN Requirement: No

Specimen:

Preferred: Frozen plasma

Alternative: Frozen serum

Volume: 2.0 mL

Minimum Volume: 1.0 mL

Container:

Preferred: EDTA (Lavender Top) tube - frozen plasma, protected from light

Alternative: Red Top (no gel barrier) tube - frozen serum, protected from light

Collection:

EDTA Plasma:

1. Collect and label sample according to standard protocols.
2. Gently invert EDTA tube 10 times immediately after draw. Do not shake.
3. Centrifuge specimen for 8-10 minutes, within 4 hours of collection. (use of refrigerated centrifuge to separate cells at 2-8 °C preferred)
4. **Transfer plasma to an amber polypropylene or polyethylene transport tube** labeled as "EDTA Plasma" to protect from light. Alternatively, neutral color polypropylene or polyethylene tubes can be used if wrapped in aluminum foil. Freeze tubes at -10 to -30°C immediately. Ship frozen.

Serum:

1. Collect and label sample according to standard protocols.
2. Gently invert red top tube 10 times immediately after draw. Do not shake.
3. Allow blood to clot 20-30 minutes. Centrifuge specimen for 8-10 minutes. (use of refrigerated centrifuge to separate cells at 2-8 °C preferred)
4. **Transfer serum to an amber polypropylene or polyethylene transport tube** labeled as "Red Top Serum" to protect from light.

Alternately, neutral colored polypropylene or polyethylene tubes can be used if wrapped in aluminum foil. Freeze tubes at -10 to -30°C immediately. Ship frozen.

Fasting: Overnight fasting is required

Transport: Store specimen at -10 to -30°C after collection and ship the same day per packaging instructions included with the provided shipping box.

- Ship frozen specimen on dry ice

Stability:

Ambient (15-25°C): Not Acceptable

Refrigerated (2-8°C): 48 hours

Frozen (-20°C): 30 days

Causes for Rejection: Improper labeling; samples not stored properly; samples older than stability limits; hemolysis; lipemia; samples received not protected from light; samples received ambient or refrigerated

Methodology: Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)

Turn Around Time: 4 to 6 days

Reference Range: Adult, 8-30 nmol/L

Clinical Significance: Vitamin B1 deficiency is most often associated with alcoholism, chronic illness and following gastric by-pass surgery. Prolonged deficiency causes beriberi. Plasma vitamin B1 is useful in evaluating nutritional assessment and compliance.

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.