
Lab Dept: Chemistry

Test Name: PHENOBARBITAL LEVEL

General Information

Lab Order Codes: PHB

Synonyms: Luminal, PHB

CPT Codes: 80184 - Phenobarbital

Test Includes: Phenobarbital concentration reported in ug/mL.

Logistics

Test Indications: Useful for therapeutic drug monitoring (TDM). Phenobarbital is used in the treatment of seizures. It is particularly useful for treatment of generalized tonic-clonic, partial, focal motor, temporal lobe and febrile seizures.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 hours

Special Instructions: Peak concentrations are reached several hours after a single large dose. The half-life ranges from 53 to 140 hours.

Specimen

Specimen Type: Blood

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

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL serum/plasma

Collection: Routine blood collection. Mix tubes containing anticoagulant by gentle inversion.

Special Processing: Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Store at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range: Therapeutic concentration: 15 - 40 ug/mL

Critical Values: >60 ug/mL

Limitations: N/A

Methodology: Particle Enhanced Turbidimetric Inhibition Immunoassay (PETINIA)

References: Abbott Alinity c Phenobarbital Reagent Kit Instructions for Use (July 2018) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064 USA

Abbott Alinity c Multiconstituent Calibrator Package Insert (July 2018) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA

Bio-Rad Liquichek Immunoassay Plus Package Insert, Bio-Rad Laboratories, Irvine, CA, 92618, USA

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

Bio-Rad Liquichek Unassayed Chemistry Control (Human) Product Insert, Bio-Rad Laboratories, Irvine, CA, 92618, USA

Updates: 5/1/2005: Critical value changed, previously listed as >50 ug/mL.
2/9/2016: Update alt tube type
12/8/2020: Updated for method Abbott Alinity, method Siemens Vista removed