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**Lab Dept:** Chemistry

**Test Name:** PHENOBARBITAL LEVEL

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***General Information***

**Lab Order Codes:** PHB

**Synonyms:** Luminal, PHB

**CPT Codes:** 80184 - Phenobarbital

**Test Includes:** Phenobarbital concentration reported in ug/mL.

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***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.

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***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.

<b>Special Processing:</b>	Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Store at refrigerated temperatures.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimen

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### ***Interpretive***

<b>Reference Range:</b>	Therapeutic concentration: 15 - 40 ug/mL
<b>Critical Values:</b>	>60 ug/mL
<b>Limitations:</b>	N/A
<b>Methodology:</b>	Particle Enhanced Turbidimetric Inhibition Immunoassay (PETINIA)
<b>References:</b>	PHNO Flex® reagent cartridge insert sheet Siemens Healthcare Diagnostics Inc (2008-02-20) 717060.002 – US, Rev H  Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition  Biorad Liquichek□ Unassayed Chemistry Control (Human) product inser, Irvine, CA
<b>Updates:</b>	5/1/2005: Critical value changed, previously listed as >50 ug/mL. 2/9/2016: Update alt tube type