Lab Dept: Chemistry
Test Name: VALPROIC ACID LEVEL

General Information
Lab Order Codes: VALP
Synonyms: Depakene; Depakane, Depakote; Dipropylacetic acid; VPA; Divalproex; Valproate
CPT Codes: 80164 – Dipropylacetic acid (valproic acid)
Test Includes: Valproic acid concentration reported in ug/mL.

Logistics
Test Indications: Valproic acid is used for treatment of seizures. Valproic acid may be used in conjunction with other anti-epileptics against tonic-clonic and partial seizures. Peak levels are reached in 1-4 hours. The biologic half-life is about 15 hours.
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: N/A

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 plasma/serum
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; specimens other than heparinized plasma or serum

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### Interpretive

**Reference Range:** Therapeutic concentration: 50-100 ug/mL

**Critical Values:** Toxic concentration: >200 ug/mL

**Limitations:** N/A

**Methodology:** Particle Enhanced Turbidimetric Inhibition Immunoassay (PETINIA)

**References:**

- Abbott Alinity c Valproic Acid Reagent Kit Instructions for Use, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. October 2018
- Abbott Alinity c TDM Multiconstituent Calibrator Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. July 2018
- www.childrensmn.org/Lexi-Comp Copyright © 1978-2006 Lexi-Comp Inc
- Clinical Significance, Dade Behring Inc., Glasgow Business Community, Mailbox 531, P.O. Box 6101, Newark, Delaware 19714
- Bio-Rad Liquichek Unassayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618
- Bio-Rad Liquichek Immunassay Plus Package Insert, Bio-Rad Laboratories, Irvine, CA, USA

**Updates:**

- 5/1/2005: Critical value changed, previously listed as >150 ug/mL.
- 2/9/2016: Update alt tube type