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**Lab Dept:** Chemistry

**Test Name:** TEGRETOL EPOXIDE LEVEL

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***General Information***

**Lab Order Codes:** EPOX

**Synonyms:** Carbamazepine-10,11-Epoxyde, Tegretol®, Epoxyde, CB2

**CPT Codes:** 80156 – Carbamezepine, total

**Test Includes:** Carbamazepine and Carbamazepine-10,11 Epoxyde levels reported in ug/mL.

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***Logistics***

**Test Indications:** Antiepileptic (Anticonvulsant) therapeutic drug monitoring

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** MedTox Laboratories (MedTox Test: 150)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 day

**Special Instructions:** Trough levels are most reproducible.

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***Specimen***

**Specimen Type:** Blood

**Container:** Red top NO GEL tube  
Alternate: Green top NO GEL tube

**Draw Volume:** 6 mL (Minimum: 0.6 mL) blood

**Processed Volume:** 2 mL (Minimum: 0.2 mL) serum/plasma

Note: Submission of the minimum volume results in an elevated reporting limit and inability to repeat analysis.

<b>Collection:</b>	Routine venipuncture
<b>Special Processing:</b>	Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimens

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***Interpretive***

<b>Reference Range:</b>	Carbamazepine:	4.0 – 12.0 ug/mL
	Carbamazepine-10,11-Epoxyde:	0.4 – 4.0 ug/mL
<b>Critical Values:</b>	Carbamazepine:	>15.0 ug/mL
	Carbamazepine-10,11-Epoxyde:	>7.0 ug/mL
<b>Limitations:</b>	Carbamazepine:	0.7 ug/mL reporting limit
	Carbamazepine 10, 11-Epoxyde:	0.2 ug/mL reporting limit

**Methodology:** High Performance Liquid Chromatography with Ultraviolet Detection (HPLC-UV)

**References:** [MedTox Laboratories](#) August 2015

**Updates:**  
 1/7/2015: CPT update  
 11/4/2016: Tube update