

Client: Example Client ABC123  
123 Test Drive  
Salt Lake City, UT 84108  
UNITED STATES

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 5/18/1954  
**Gender:** Male  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Carbamazepine, Total**

ARUP test code 0090260

Carbamazepine

7.4 ug/mL (Ref Interval: 4.0-12.0)

Performed By: ARUP Laboratories at University Hospital  
50 North Medical Drive  
Salt Lake City, UT 84132  
Laboratory Director: Lauren N. Pearson, DO, MPH

INTERPRETIVE INFORMATION: Carbamazepine  
Therapeutic range  
for Carbamazepine ..... 4.0-12.0 ug/mL  
Toxic level ..... Greater than 15.0 ug/mL

The therapeutic range is based on serum pre-dose (trough) draw at steady-state concentration. Carbamazepine is also subject to drug-drug interactions due to displacement of protein binding and extensive metabolism. Cross-reactivity with metabolites may account for differences in carbamazepine among analytical methods.

A rare adverse drug reaction to carbamazepine therapy includes Stevens-Johnson syndrome or toxic epidermal necrolysis. Patients of Asian ancestry with the presence of the HLA-B\*15:02 have an increased risk for this carbamazepine-induced life-threatening reaction. Pharmacogenetic testing for HLA-B\*15:02 prior to treatment is recommended for patients at risk for carbamazepine hypersensitivity. This information has been included in the FDA-approved label for carbamazepine (<https://www.accessdata.fda.gov/scripts/cder/daf/index.cfm?event=overview.process&varAppNo=016608>) and guideline from the Clinical Pharmacogenetics Implementation Consortium (<https://www.pharmgkb.org/guidelines>). [HLA-B\*15:02 Genotyping, Carbamazepine Hypersensitivity, ARUP test code 2012049.] A combination of therapeutic drug monitoring with HLA-B\*15:02 pharmacogenetics genotyping may benefit patients who are at increased risk for developing carbamazepine-induced adverse events due to rare genotypes other than HLA-B\*15:02 variant allele.

H=High, L=Low, \*=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com  
500 Chipeta Way, Salt Lake City, UT 84108-1221  
Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: Patient, Example  
ARUP Accession: 21-271-120475  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
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VERIFIED/REPORTED DATES				
Procedure	Accession	Collected	Received	Verified/Reported
Carbamazepine	21-271-120475	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

**H=High, L=Low, \*=Abnormal, C=Critical**

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