Overview

Useful For
Determining whether a poor therapeutic response is attributable to noncompliance or lack of drug effectiveness

Monitoring changes in serum concentrations resulting from interactions with coadministered drugs such as barbiturates and phenytoin

Method Name
Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

NY State Available
Yes

Specimen

Specimen Type
Serum

Specimen Required
Container/Tube:

Preferred: Red top

Acceptable: Serum gel

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Collection Instructions:
1. Draw blood immediately before next scheduled dose.
2. Centrifuge and aliquot serum into plastic vial within 2 hours of collection.

Forms
If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:

- Neurology Specialty Testing Client Test Request (T732)
- Therapeutics Test Request (T831)

Specimen Minimum Volume
0.5 mL

Reject Due To

<table>
<thead>
<tr>
<th>Gross hemolysis</th>
<th>OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross lipemia</td>
<td>OK</td>
</tr>
</tbody>
</table>
Test Definition: FELBA
Felbamate (Felbatol), S

Gross icterus | OK

### Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
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<tbody>
<tr>
<td>Serum</td>
<td>Refrigerated (preferred)</td>
<td>28 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambient</td>
<td>28 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>28 days</td>
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### Clinical and Interpretive

**Clinical Information**

Felbamate is an anticonvulsant drug approved for treatment of partial seizures with or without secondary generalization in persons 14 years of age and older. It is also approved for Lennox-Gastaut syndrome in children 2 years of age and older. Felbamate is well absorbed (>90%) and is metabolized by the hepatic cytochrome P450 system. Metabolites lack anticonvulsant activity. The elimination half-life of felbamate ranges from 13 to 23 hours.

Optimal response to felbamate is seen with serum concentrations between 30 mcg/mL to 60 mcg/mL. Patients who are older adults or have renal dysfunction may require reduced dosing; felbamate should not be given to individuals with hepatic disease. Toxicity can be severe, including life-threatening aplastic anemia or liver failure; toxic concentration has been established at concentrations greater than 100 mcg/mL.

Coadministration of felbamate increases the concentration of phenytoin and valproic acid, decreases carbamazepine concentration, and increases carbamazepine-10,11-epoxide (its active metabolite). Conversely, coadministration of phenytoin or carbamazepine causes a decrease in felbamate concentration.

**Reference Values**

30.0-60.0 mcg/mL

**Interpretation**

Optimal response to felbamate is associated with serum concentrations of 30 mcg/mL to 60 mcg/mL.

Toxic serum concentrations for felbamate have been established at concentrations greater than 100 mcg/mL.

**Cautions**

No significant cautionary statements

**Clinical Reference**


Performance

PDF Report
No

Day(s) Performed
Monday, Wednesday, Friday

Report Available
Same day/1 to 3 days

Specimen Retention Time
14 days

Performing Laboratory Location
Rochester

Fees and Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

Test Classification
This test was developed, and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information
80167

LOINC® Information

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<th>Order LOINC Value</th>
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<tr>
<td>FELBA</td>
<td>Felbamate (Felbatol), S</td>
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<table>
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<th>Result LOINC Value</th>
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<tbody>
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<td>80782</td>
<td>Felbamate (Felbatol), S</td>
<td>6899-9</td>
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