MAYO CLINIC LABORATORIES

Test Definition: FBUMT

Bupropion and Metabolite, S

Overview

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

NY State Available
Yes

Specimen

Specimen Type
Serum Red

Specimen Required
Specimen Type: Serum

Container/Tube: Red-top

Preferred: Red-top

Specimen volume: 1 mL

Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum frozen in a plastic vial.

Reject Due To

Hemolysis	Mild reject; Gross reject
Lipemia	Mild OK; Gross OK
Icterus	OK
Other	Polymer gel separation tube (SST or PST)

Specimen Minimum Volume
0.5 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum Red	Frozen (preferred)	30 days	

Clinical & Interpretive

Reference Values

Reporting Limit determined each analysis.

Units: ng/mL

Interpretation

Bupropion:

Maximum antidepressant response was observed at trough plasma concentrations of 50 – 100 ng/mL bupropion with virtually no response below 25 ng/mL.

Reported average bupropion peak plasma concentrations:

Adults: Single 100 mg IR – 120 +/- 10 ng/mL (Males):

150 +/- 10 ng/mL (Females)

Adults: Single 200 mg IR -220 +/- 20 ng/mL (Males):

270 +/- 20 ng/mL (Females)

Adults: Single 150 mg SR - 140 +/- 20 ng/mL

Juveniles: 100 mg/day SR for 2 weeks – 25 +/- 8 ng/mL

Juveniles: 200 mg/day SR for 2 weeks – 53 +/- 22 ng/mL

Specimens must be kept frozen. If specimens are not kept frozen, this may cause lower or negative values.

Hydroxybupropion:

8 adults (Age 22 – 42) taking thrice daily 100 mg normal release bupropion for 2 weeks had an average peak plasma concentration of 1000 +/- 70 ng/mL hydroxybupropion.

Juvenile patients taking once daily, extended release bupropion for two weeks had the following peak plasma concentrations:

100 mg/day (n = 11), 450 +/- 210 ng/mL hydroxybupropion

200 mg/day (n = 8), 710 +/- 350 ng/mL hydroxybupropion

Performance

PDF Report
No

Performing Laboratory Location
NMS Labs

Fees & Codes

Test Classification
This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information
80338

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
FBUMT	Bupropion and Metabolite, S	Not Provided

Result ID	Reporting Name	LOINC®
Z3522	Bupropion	6706-6
Z3523	Hydroxybupropion	9418-5