

Overview

Useful For

Assessing compliance or making dosage adjustments for mitotane

Method Name

Gas Chromatography Mass Spectrometry (GC-MS) Confirmation with Quantitation

NY State Available

Yes

Specimen

Specimen Type

Plasma Na Heparin

Shipping Instructions

Ship specimen refrigerated.

Specimen Required

Collection Container/Tube: Green top (sodium heparin) (Lithium heparin and PST/plasma gel tubes **are not** acceptable.)

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into plastic vial.

Forms

[If not ordering electronically, complete, print, and send a Therapeutics Test Request \(T831\)](#) with the specimen.

Specimen Minimum Volume

0.5 mL

Reject Due To

Gross hemolysis	OK
Gross lipemia	Reject
Gross icterus	OK

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
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Plasma Na Heparin	Refrigerated (preferred)	21 days	
	Ambient	72 hours	
	Frozen	28 days	

Clinical & Interpretive

Clinical Information

This test is intended for the use of therapeutic monitoring of the drug mitotane in patients being treated for adrenal carcinoma. Guidelines suggest monitoring mitotane serum/plasma levels every 2 to 3 weeks for the first 3 months. After reaching a plateau, the interval can be extended (eg, every 6 weeks). Mitotane is a key drug for the treatment of adrenal cortical carcinoma. Due to its narrow therapeutic window (14 to 20 mcg/mL), monitoring its concentration is crucially important.

Reference Values

Therapeutic: 14-20 mcg/mL

Interpretation

In the literature when mitotane is used to treat adrenocortical carcinoma, the maximum benefit is seen when plasma mitotane concentrations are between 14-20 mcg/mL.

Cautions

No significant cautionary statements

Clinical Reference

1. Feliu C, Cazaubon Y, Guillemin H, et al. Therapeutic drug monitoring of mitotane: Analytical assay and patient follow-up. *Biomed Chromatogr.* 2017;31(11):10.1002/bmc.3993. doi:10.1002/bmc.3993
2. Ando M, Hirabatake M, Yasui H, Fukushima S, Sugioka N, Hashida T. A simplified method for therapeutic drug monitoring of mitotane by gas chromatography-electron ionization-mass spectrometry. *Biomed Chromatogr.* 2020;34(3):e4776. doi:10.1002/bmc.4776

Performance

Method Description

After protein precipitation, mitotane is analyzed by gas chromatography with mass spectrometry.(Unpublished Mayo method)

PDF Report

No

Day(s) Performed

Tuesday, Thursday

Report Available

2 to 7 days

Specimen Retention Time

14 days

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Superior Drive

Fees & 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 account representative. 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. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

80299

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
MITAN	Mitotane, P	13626-7

Result ID	Test Result Name	Result LOINC® Value
621811	Mitotane, P	13626-7