MAYO CLINIC LABORATORIES

Test Definition: MITAN

Mitotane, Plasma

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: Plain, green-top tube (sodium heparin). Lithium Heparin and Gel tubes **are not** acceptable.
Submission Container/Tube: Plastic vial
Specimen Volume: 1 mL
Collection Instructions: Centrifuge and aliquot plasma into plastic vial within 2 hours of collection.

Specimen Minimum Volume
0.5 mL

Reject Due To

Hemolysis	Mild OK; Gross OK
Thawing**	Warm OK; Cold OK
Lipemia	Mild OK; Gross Reject
Icterus	Mild, OK; Gross OK
List other reasons for rejection	Serum gel tube, Plasma Gel Tube

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container

Plasma Na Heparin	Refrigerated (preferred)	21 days	
	Frozen	28 days	
	Ambient	72 hours	

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After protein precipitation, mitotane is analyzed by gas chromatography with mass spectrometry.(Unpublished Mayo method)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

Rochester

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