



Laboratory Service Manual

Lab Dept: Chemistry

Test Name: 7-DEHYDROCHOLESTEROL

General Information

Lab Order Codes: 7DEH

Synonyms: Smith-Lemli-Opitz Screen, RSH syndrome, 8-dehydrocholesterol

CPT Codes: 82541 – Column chromatography/mass spectrometry, analyte not elsewhere specified; single stationary and mobile phase

Test Includes: 7-dehydrocholesterol level reported as positive or negative. Quantitative results are provided when positive.

Logistics

Test Indications: Useful in diagnosing Smith-Lemli-Opitz (SLO) Syndrome (3 beta-hydroxysterol-delta 7-reductase deficiency).

Lab Testing Sections: Chemistry – Sendouts

Referred to: Mayo Medical Laboratories (Test# 81595)

Phone Numbers:

Minneapolis: 612-813-6580

Saint Paul: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: Varies, test performed 1 day per week (2 - 8 days)

Special Instructions: [See Patient Preparation](#)

Specimen

Specimen Type: Whole blood

Container: Green top (Lithium heparin) tube

Draw Volume: 3.0 mL blood

Processed Volume: 1.0 mL (Minimum: 0.2 mL) plasma



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Collection:	Routine venipuncture. Mix specimen thoroughly by gentle inversion.
Special Processing:	Lab Staff: Centrifuge immediately after collection, separate and freeze plasma. Store and ship frozen in a plastic vial.
Patient Preparation:	4 or more hour fasting specimen preferred (infants before next feeding).
Sample Rejection:	Specimens other than plasma or serum, warm specimens, anticoagulants other than heparin or EDTA

Interpretive

Reference Range:	Negative (if positive, quantitative results are provided)
Critical Values:	N/A
Limitations:	The enzymatic tests for measuring plasma cholesterol quantitate all three hydroxysterols and are unreliable for diagnosis for SLO.
Methodology:	Gas Chromatography/Mass Spectrometry (GC/MS)
Contraindications:	N/A
References:	Mayo Medical Laboratories Web Page (May 2006) http://www.mayoreferenceservices.org/mrs/mml/index.asp