MAYO CLINIC LABORATORIES

Test Definition: FFES

Estradiol Free, Serum (includes Estradiol and SHBG)

Overview

Method Name
Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS); Equilibrium Dialysis; Immunoradiometric Assay (IRMA)

NY State Available
Yes

Specimen

Specimen Type
Serum Red

Specimen Required
Collection Container/Tube:
Preferred: Red top
Acceptable: Serum gel tube
Submission Container/tube: Plastic vial
Specimen Volume: 3 mL Serum
Collection Instructions:
1. Within 45 minutes of collection, centrifuge and aliquot 3 mL of serum into a plastic vial.
2. Freeze immediately after separation and send frozen.
Additional Information: To avoid delays when requesting multiple tests on frozen specimens, submit separate specimens for each test requested.

Specimen Minimum Volume
Serum: 1 mL; Note: This volume does not allow for repeat testing.

Reject Due To

Plasma	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum Red	Frozen (preferred)	180 days	
	Ambient	48 hours	
	Refrigerated	48 hours	

Clinical & Interpretive

Clinical Information

Refer to www.labcorp.com/test-menu/search

Reference Values

Estradiol, Serum MS
Newborn: Levels are markedly elevated at birth and fall rapidly during the first week to prepubertal values of <15 pg/mL.
Males <6 months: Levels increase to 10-32 pg/mL between 30 and 60 days, then decline to prepubertal levels of <15 pg/mL by 6 months.
Females <1 year: Levels increase to 5.0-50 pg/mL between 30 and 60 days, then decline to prepubertal levels of <15 pg/mL during the first year.
Prepubertal: <15 pg/mL

Adult Males: 8.0-35 pg/mL
Adult Females:
Follicular: 30-100 pg/mL
Luteal: 70-300 pg/mL
Postmenopausal: <15 pg/mL

Free Estradiol, Percent
Adult Males: 1.7-5.4 %
Adult Females: 1.6-3.6 %

Free Estradiol, Serum
Adult Males: 0.2-1.5 pg/mL
Adult Females: 0.6-7.1 pg/mL

Sex Hormone Binding Globulin
Infants (1 month-23 months): 60.0-252.0 nmol/L
Prepubertal: 72.0-220.0 nmol/L

Pubertal:
Males:16.0-100.0 nmol/L
Females: 36.0-125.0 nmol/L

Adult Males:
20 years-49 years: 16.5-55.9 nmol/L
>49 years: 19.3-76.4 nmol/L

Adult Females:
20 years-49 years: 24.6-122.0 nmol/L
>49 years: 17.3-125.0 nmol/L

Performance

PDF Report
No

Day(s) Performed
Varies

Report Available
10 to 16 days

Performing Laboratory Location
Esoterix Endocrinology

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 LabCorp. It has not been cleared or approved by the Food and Drug Administration.

CPT Code Information
82681-Free Estradiol
84270-Sex Hormone binding globulin
82670-Estradiol

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
FFES	Free Estradiol with SHBG	Not Provided

Result ID	Test Result Name	Result LOINC® Value
Z0228	Free Estradiol, Percent	14960-9
Z0229	Free Estradiol, Serum	2240-0
Z0230	Sex Hormone Binding Globulin (SHBG)	13967-5

Z0259	Estradiol, Serum	35384-7