



# 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
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### Specimen Stability Information

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

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**Clinical & Interpretive****Clinical Information**

Refer to [www.labcorp.com/test-menu/search](http://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

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Z0259	Estradiol, Serum	35384-7
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