

---

**Lab Dept:** Chemistry

**Test Name:** LUTEINIZING HORMONE (LH)

---

***General Information***

**Lab Order Codes:** LH

**Synonyms:** LH; Lutropin

**CPT Codes:** 83002 – Gonadotropin; luteinizing hormone (LH)

**Test Includes:** LH concentration measured in mIU/mL.

---

***Logistics***

**Test Indications:** Luteinizing hormone (LH) is secreted by the anterior pituitary in response to gonadotropin-releasing hormone. LH secretion is regulated by a balance of positive and negative feedback mechanisms involving the hypothalamic-pituitary axis and the pituitary. FSH and LH play a critical role in maintaining the normal function of the male and female reproductive systems.

**Lab Testing Sections:** Chemistry

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 day

**Special Instructions:** N/A

---

***Specimen***

**Specimen Type:** Blood

**Container:** Preferred: Green top (Li Heparin) tube  
Alternate: Red, marble or gold top tube

**Draw Volume:** 1.5 mL (Minimum: 0.75 mL) blood

**Processed Volume:** 0.5 mL (Minimum: 0.25 mL) plasma/serum

**Collection:** Routine venipuncture

**Special Processing:** Lab Staff: Centrifuge specimen, remove plasma/serum aliquot into a plastic sample cup. Store at 2-8 degrees Centigrade for up to 7 days.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimen

---

***Interpretive***

**Reference Range:**

Age	Female Range (mIU/mL)	Male Range (mIU/mL)
<3 months:	0 – 2.41	0.19 – 3.81
3 mo – <1 year:	0 – 1.18	0 – 2.89
1 - <10 years:	0 – 0.33	0 – 0.33
10 - <13 years:	0 – 4.34	0 – 4.34
13 - <15 years:	0.37 – 6.52	0 – 4.11
15 - <17 years:	0 – 13.1	0.79 – 4.76
17 - <19 years:	0 – 8.38	0.94 – 7.1
Adult:		0.57 – 12.07
<b>Menstruating Females:</b>		
Follicular phase:		1.80 – 11.78
Midcycle peak:		7.59 – 89.08
Luteal phase:		0.56 – 14.00

**Critical Values:** N/A

**Limitations:** Heterophile antibodies may interfere with immunoassay tests.

**Methodology:** Chemiluminescent Microparticle Immunoassay (CMIA)

**References:** Abbott Alinity i LH Reagent Instructions for Use (April 2018) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA

Abbott Alinity i LH Calibrator Kit Package Insert (April 2018) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA

CALIPER Reference Interval Studies (access 10/27/2020)

Bio-Rad Liquichek Immunoassay Plus Quality Control Package Insert  
(April 2020) Bio-Rad Laboratories, Irvine, CA, 92618

Jacobs and DeMott Laboratory Test Handbook (2001), Lexi-Comp Inc,  
Hudson, OH, 5<sup>th</sup> Edition

National Committee for Clinical Laboratory Standards (NCCLS) (2002)  
Clinical Laboratory Technical Procedure Manuals; Approved Guideline-  
Fourth Edition GP2-A4

Burtis CA, Ashwood ER, editors (2006) Tietz Textbook of Clinical  
Chemistry. 4th ed. Philadelphia: W.B. Saunders

Bio-Rad Immunoassay Plus Control Product Insert PIL2KLH-19

**Updates:**

7/22/2014: Method change, previously listed as Competitive  
Chemiluminescent Immunoassay

2/8/2016: Update alt tube types

12/9/2020: Updated for method Abbott Alinity, removed method  
Siemens Vista