



Technical Bulletin

Endocrine - LH (Luteinizing Hormone)

NOW IN-HOUSE

Luteinizing Hormone (LH)

Phoenix Central Laboratory is pleased to offer daily luteinizing hormone testing. This test provides an accurate, semi-quantitative measurement of canine and feline luteinizing hormone (LH). The LH test may be used to distinguish between ovariectomized and sexually intact female dogs and cats, as well as to identify the pre-ovulatory LH surge in the female dog.

Distinguishing between Ovariectomized and Sexually Intact Bitches and Queens

Serum concentrations of Luteinizing Hormone (LH) increase after gonadectomy in dogs and cats. Serum LH concentrations are less than 1 ng/ml in sexually intact bitches and queens. LH values greater than 1 ng/ml (positive result) in bitches and queens not in estrus are indicative that the ovaries have been removed. Therefore, a single low LH test (negative result/less than 1 ng/ml) confirms that the bitch or queen is sexually intact. Currently this is the test of choice for detecting ovarian tissue. The animal must not be exhibiting signs of heat when test is done.

Ovulation Timing in the Bitch

The duration of the LH peak varies from dog to dog and lasts only 24 hours in approximately 40% of the bitches. For this reason, serum should be tested for LH every day beginning on the 4th or 5th day of proestrus or when vaginal cytology approaches 50% cornification. When a positive result is obtained this is considered "Day 0". A progesterone test should be done 3 ("Day 3") days later to confirm a rise in progesterone. If the detected increase in LH was the actual preovulatory surge, progesterone concentrations should increase above 2 ng/ml within 3 days and stay elevated. If the progesterone remains low, less than 2 ng/ml, it indicates that a proestrus fluctuation in LH was identified. Continue daily testing until the true LH surge occurs.

The LH surge is designated as "Day 0". Days 4 through 7 post LH surge encompass the true fertile period with peak fertility on Days 5 and 6. Breeding on Days 2, 4, and 6 post LH surge will completely cover the fertile period and maximize viable sperm numbers on the bitch's most fertile days.

Note: Results will be reported as "Positive" or "Negative"

Test Code:	620
Test Name:	LH (Luteinizing Hormone)
Method:	ICG (immunochromatographic assay)
Specimen:	1 SST or 1 RTT Minimum: 0.2 ml serum Markedly hemolyzed or lipemic samples should not be used.
Normal Test Value:	Positive or Negative
Days(s) Test Set Up:	Monday through Saturday AM/PM
Reported Time:	Same day
Cost:	\$23.00
Timing of Sample:	See Notes Above