Volume Required:
Testosterone: 2 mL serum
AMH equine: 1 ml serum
Estrone Sulfate, Progesterone: 0.5 mL serum each.
Inhibin: 1 ml serum, sent overnight on ice.
AMH Canine/Feline 200 µL serum, fasted, 30 days post-surgery. Send 0.5 ml for Progesterone/AMH and 2 ml for testosterone/AMH.
Cryptorchid Panel: 2 mL serum
Pregnancy Panel: 2 mL serum
Granulosa Cell Tumor Panel: 3 mL serum

Sample Handling and Shipment Requirements:
PLEASE SEND SERUM ONLY, no whole or clotted blood. Blood contains active enzymes which may affect the results. The use of serum separator tubes is not recommended; they may degrade the analytes, particularly progesterone and AMH, and may invalidate results. Draw in a tube with no additive (red top). If you do use a serum separator tube, transfer the serum to a new tube as soon as possible.

For AMH and inhibin testing:
Please separate the serum and ship priority overnight on an ice pack.
Store the sample in the freezer if shipping will be delayed, but you may ship it on an ice pack, dry ice is not required. Do not ship the sample via the US Postal Service, as the delivery will be delayed in the campus mailroom for up to a week, causing sample degradation. Do not ship the samples to arrive on a holiday or a weekend, as UPS and Fed Ex will not deliver it to us, and it will sit at the shipping facility, causing sample degradation. Please check our site for university holidays.

For steroid hormone (testosterone, DHP, progesterone, estrone) testing:
These hormones are more stable; however, they may be degraded by poor handling conditions, and shipment as whole or clotted blood. Shipment by US Postal Service is not recommended for a fast turnaround, as the sample will be delayed up to one week. Alternatively, you may ship this type of sample 2-day or ground via Fed Ex or UPS.

Shipping Instructions:
You may obtain a reduced price Fed Ex shipping label through our program. Specimens sent to our teaching hospital on Garrod Drive, or other UC Davis lab will be delayed in reaching our lab. Ship to:

UC Davis ENDOCRINOLOGY LABORATORY
1089 Veterinary Medicine Dr.
Bldg: VM3B room 3230
DAVIS, CA 95616-5270

Testing schedule and payment:
- All tests are run on a weekly basis. See our website for holiday exceptions.
- Samples must be received in the lab by Wednesday morning of each week to receive results for testosterone, inhibin, progesterone, and estrone sulfate that same week.
- Feline/canine AMH is run on Tuesdays. Equine AMH is run on Mondays.
- Results are reported on Thursday (progesterone and estrone sulfate), Friday (testosterone and inhibin), Monday (AMH-equine), and Tuesday (feline/canine AMH).
- Credit card payment is required before the assays can be reported. Alternatives, if approved, include billing or credit card number held on file. Checks included with shipment should be made to “UC Regents”.
- Cost per assay includes interpretation, and consultation with a veterinarian as required or requested.
LABORATORY REFERENCE RANGES

PROGESTERONE:
Equine Female: Absence of active luteal tissue: 0.1 to 0.5 ng/mL
Borderline for the presence of luteal tissue: 0.5 to 1.0 ng/mL
Presence of luteal tissue: > 1.0 ng/mL
Adequate for the maintenance of early equine pregnancy: > 4.0 ng/mL
Camelid Female: Indirect determination of pregnancy > 2.0 ng/mL
Canine/Feline Female: Absence of active luteal tissue: 0.1 to 0.5 ng/mL, Borderline: 0.5 to 1.0 ng/mL
Presence of luteal tissue: > 1.0 ng/mL

ESTRONE SULFATE:
Equines and goats
Equine Female:
Standard size mares: non pregnant or pregnant (first 45 days of pregnancy) 0.1 - 6.0 ng/mL. Borderline 6.1 - 10 ng/mL. Pregnancy of 45 days or greater > 10.0 ng/mL
Miniature mares: non pregnant or pregnant (first 80 days of pregnancy) 0.1 - 60.0 ng/mL
Presence of luteal tissue: > 80 days or greater > 60.0 ng/mL
Equine Males: Cryptorchidism (not recommended, serum testosterone levels suggested)
Gelding < 0.1 ng/mL; Cryptorchid 35 - 60 ng/mL; Stallion 140 - 200 ng/mL
Goats: pregnancy over 9 weeks gestation > 8 ng/mL
We do not have estrone sulfate reference ranges for donkeys, mules, sheep, cows, felines or canines.

TESTOSTERONE:
Male: Cryptorchidism determination from single serum sample
Equine: Gelding < 50 pg/mL; Cryptorchid: 100 - 500 pg/mL; Mature stallion: 800 - 2000 pg/mL;
Canine/Feline male: Castrated less than 50 pg/mL, cryptorchid 100 - 500 pg/mL; intact greater than 1000 pg/mL.
Other male: Castrated < 50 pg/mL; inconclusive 51 - 100 ng/mL; cryptorchid 101 - 500 pg/mL; intact male 800 - 10,000 pg/mL.
Female: Granulosa cell tumor determination:
Non-pregnant mare: Normal 20 – 45 pg/mL; Marginally elevated: 45 - 70 pg/mL; Elevated: 70 - 100 pg/mL;
Indicative of tumor: ≥ 100 pg/mL.

hCG stimulation test Protocol:
Equine: Baseline blood sample followed by the administration of 2500 IU of hCG IM or IV.
2 hours post-stimulation draw a second blood sample.
Small animals: Baseline blood sample followed by the administration of 50 IU/Kg of hCG IM or IV. 2 hours post-stimulation draw a second blood sample.

INHIBIN: EQUINE ONLY
Mare: Normal ranges for a non-pregnant mare 2 - 60 pg/mL, approaching the upper limit of normal 60.1 - 100 pg/mL.
Mares with inhibin levels > 100 pg/mL indicative of tumor, or possibly estrus.
Stallion: Normal range to be determined.
The lab currently does not run canine inhibin.

AMH: EQUINE
Mare: Normal ranges for a non-pregnant mare 0.1 – 6.9 ng/mL
Marginally elevated 7.0 – 7.9 ng/mL
Levels consistent with granulosa cell tumor > 8.0 ng/mL
Cryptorchid levels > 0.15 ng/mL

AMH Feline: Positive, negative or inconclusive only. No number or range provided.
AMH Canine: Intact Female: 0.2 – 3.2 ng/mL, Spayed Female: ND – 0.14 ng/mL, Inconclusive Female: 0.15 – 0.19 ng/mL;
Intact Male: 0.52 – 3.2 ng/mL, Castrated Male ND – 0.15 ng/mL, Inconclusive Male: 0.15 ng/mL – 0.51 ng/mL.
UC Davis Clinical Endocrinology Laboratory
3230 VM3B, 1089 Veterinary Medicine Dr., Davis, CA 95616-5270
Phone: 530-752-0298 FAX: 530-752-6318
https://www.vetmed.ucdavis.edu/labs/endo-lab
endolab@ucdavis.edu

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**Equine Pregnancy Panel** ($40.00)
- Progesterone / Estrone Sulfate
  - 0.5 ml serum

**Cryptorchid Panel** ($75.00)
- Testosterone / AMH
  - 2 ml serum

**Equine GCT Panel I**
- □ Inhibin / Testo / Prog ($90.00)
  - 3 ml serum

**Equine GCT Panel II**
- □ AMH / Inhibin / Testo ($130.00)
  - 3 ml serum, most sensitive panel

**Equine/Caprine Estrone Sulfate** ($25.00)
- □ 1 ml serum

**Equine Inhibin** ($57.00)
- □ 1 ml serum

**Equine AMH / Inhibin** ($100.00)
- □ 2 ml serum

**AMH ($60.00) Feline/Canine**
- □ 0.2 ml serum

**AMH Feline/Canine / Progesterone Panel** ($75.00)
- □ 0.5 ml serum

**DHP/Progesterone by Mass Spec** ($100.00)
- □ 2 mL serum
  *Mare must be over 120 days pregnant

**Repeat Panel by Mass Spec**
- (No charge, subject to lab approval)
  - □ 2 mL serum

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**Client Information** (PLEASE print clearly)
Clinic/Hospital Name: ____________________________________________________________
Address: __________________________________________________________________________
City: __________________ State: ________ Zip Code: __________
Contact: Dr. __________________ Phone: __________________

**Patient Information**: 
Owner: ___________________ Animal name: ____________________________
Animal/Reference #:__________________ Species: ________________ □ Mini-equine
Sex: □ Male  □ Female  □ Intact  □ Castrated  □ Spayed  Age: __________________________
Date collected: ________________ Last breeding date: __________________________

**History**: 
__________________________________________________________________________
__________________________________________________________________________

**Receive Results**: 
□ Fax: ___________________________ □ Email: ___________________________

**Payment Information**:
Pay online using the link on our website: https://www.vetmed.ucdavis.edu/labs/endo-lab
□ Please check if paid online, or put credit card information below.

Signature: __________________________ Date: __________________________
□ MasterCard  □ Visa  □ American Express
Credit Card # ___________________ - - - - - - - - - - - Expiration Date: ______