**ENDOCRINOLOGY SUBMISSION FORM**

**Minnesota Veterinary Diagnostic Laboratory**

1333 Gortner Avenue

Sample Mailers: St. Paul, MN 55108

_Non-insulated_ (612) 625-8787 or (800) 605-8787

_Insulated_ FAX: (612) 624-8707

Web site access and results: [http://www.mvdl.umn.edu](http://www.mvdl.umn.edu)

**Clinic Name:** ____________________________

**Veterinarian:** ____________________________

**Address:** ____________________________________________________________

**Animal Name:** ________ **Species:** ___________

**Breed:** ____________________ **Age:** ___________

**Sex:** ________ **Date sent:** ________ **No. Tubes sent:** ________

**Phone:** ( ) ____________________________

**Fax:** ( ) ____________________________

**Tentative diagnosis, brief history or clinical signs:**

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**ADRENOCORTICAL FUNCTION TESTS**

- **ACTH Endogenous (requires EDTA plasma)**
- **ACTH Stimulation Test: **
  - Gel __Synthetic (pre- and 1 post cortisol; pre- and 2 post cortisol)
  - Basal Cortisol
  - Low Dose Dexamethasone Suppression Test (pre- and 2 post cortisols)
  - High Dose Dexamethasone Suppression Test (pre- and 2 post cortisols)

**THYROID FUNCTION TESTS**

- Free T4 by Dialysis (FT4D)
- Thyroglobulin Autoantibodies (TgAA)–Canine
- Thyrotropin (cTSH)–Canine
- Thyroxine (T4)
- Triiodothyronine (T3)
- T3 Suppression Test (pre- and post T3, pre- and post T4)
- Thyroid Profile Test–Canine (T3, T4, TgAA, TSH, FT4D)
- Thyroid Profile Test–Non-canine (T3, T4, FT4D)
- OFA–Canine Thyroid Registry (FT4D, TgAA, TSH)

**REPRODUCTIVE FUNCTION TEST**

- Estrone Sulfate–Equine>80 days post breeding
- GnRH Response Test–Canine, Feline (See back page)
- HCG Stimulation Test–Equine (pre- and post testosterone)
- Progesterone
- Testosterone

**OTHER TESTS**

- Digoxin
- Insulin
- Trypsin Like Immunoreactivity (TLI)–Canine
- Other–Specify ____________

*Tests are done daily M-F. All other tests are done once a week. Call if you need more information.

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**SAMPLE SUBMISSION INSTRUCTIONS**–Enclose a completed Endocrinology Submission Form for each animal.

Volume required–Each test requires 1 ml of serum, EXCEPT for the following:

- Thyroid Profile Test and OFA Canine Thyroid Registry require 2 ml serum
- Endogenous ACTH requires 1 ml of EDTA plasma

Do NOT send whole blood. Serum must be collected in red top tubes. Do not use serum separator tubes. Remove serum from red top tube within 30 minutes of collection. Plasma must be collected in EDTA purple top tubes. (NOTE: special handling is required for OFA Canine Thyroid Registry serum and endogenous ACTH plasma samples. See back page.) Place serum or plasma in plastic tubes and label tube with owner’s name and test. All samples (except serum T4 and T3) must be shipped cold or frozen and packed with frozen gel packs. Freeze samples if shipping is delayed more than 24 hours. T4 and T3 serum may be sent at room temperature.

See back page for detailed instructions.

Revised 12/99
COLLECTION AND SHIPPING INFORMATION

SAMPLE COLLECTION: Do NOT send whole blood.

Serum: Collect blood samples in a red top tube. Allow clotting at room temperature for 15 to 30 min. Centrifuge to separate serum from clotted blood. Transfer serum into a plastic tube for shipment. Depending on the test requested, samples might be sent at room temperature, on frozen gel packs or frozen prior to shipment. OFA Canine Thyroid Registry serum must be kept cold or frozen and received within 24 hours of shipping.

Plasma: Endogenous ACTH is the only test requiring EDTA plasma. For Endogenous ACTH, collect a fasting whole blood sample in an EDTA purple top tube. Immediately transfer to a plastic tube and centrifuge within 15 min. of collection. Transfer 1.0 ml plasma to another plastic tube and freeze. Ship sample frozen, with frozen gel packs and overnight. All other tests require serum.

Shipping instructions: Enclose a completed submission form for each animal. Label and cap each tube properly. For shipping without frozen gel pack (T4 and T3 only), place sample(s) in sample mailer (can be obtained from the Endocrine lab). For shipping with frozen gel packs, place samples in an insulated sample mailer with 2 to 3 frozen gel packs. Fill in the remaining space with paper or other insulating material. Close the box and tape it thoroughly. See below for samples that must be shipped by overnight carrier service. Samples that need to be sent on frozen gel packs must be stored frozen if not shipped the day of collection.

ADRENOCORTICAL FUNCTION TESTS:

ACTH Endogenous: Fast the animal 12 hr when possible, to avoid lipemic samples. This test requires a minimum of 1ml EDTA plasma. Do not send whole blood or serum. See instructions under ‘plasma’ above.

ACTH Stimulation Test: Collect a basal 1ml serum sample. Then administer ACTH gel by IM injection (2.2 IU/kg for dogs and cats or other doses decided by the veterinarian). For dogs, collect a 1ml serum sample 2 hr after injecting gel. For cats, collect 1 ml serum samples at 30 min. and 1 hr after injecting gel. If using synthetic ACTH such as Cortrosyn, inject 0.25 mg IM for dogs, 0.125 mg IM for cats or small dogs, or other doses decided by the veterinarian. For dogs, collect 1ml serum sample 1 hr after injection. For cats, collect 1ml serum samples at 30 min. and 1 hr after injection. Ship the serum on frozen gel packs.

Basal Cortisol: Submit 1 ml of serum. Ship the sample on frozen gel packs.

Low-dose dexamethasone suppression (LDDS) test: Collect a basal serum sample and then inject 0.01 mg/kg dexamethasone IM or IV. Collect post 1ml serum samples at 4 and 8 hr after injection. Ship the samples on frozen gel packs.

High-dose dexamethasone suppression (HDDS) test: Collect a basal serum sample and then inject 0.1mg/kg dexamethasone IM or IV. Collect post 1ml serum samples at 4 and 8 hr after injection. Ship the samples on frozen gel packs.

THYROID FUNCTION TESTS

Free T4 by dialysis (FT4D) or Thyrotropin (cTSH): Submit 1 ml of serum. Samples can be shipped on frozen gel packs if they are to be sent on the day of collection by overnight service. Alternatively, samples must be shipped frozen. Samples must be cold upon arrival at VDL.

Basal Thyroxine (T4), Triiodothyronine (T3) or Thyroglobulin autoantibodies (TgAA): Submit 1 ml of serum for each test requested. Shipping with frozen gel packs is not necessary for analysis of these indices.

T3 suppression test: Obtain a baseline 1 ml serum sample, store it frozen until ready to ship with post sample. Administer 25 µg T3 (Cytomel) PO every 8 hrs for seven dosages. Collect 1ml post serum sample 4 hr after the last dose. Ship pre and post samples together on frozen gel packs.

Thyroid Profile Tests: Submit 2 ml of serum. Samples can be shipped on frozen gel packs if they are to be sent on the day of collection by overnight service. Alternatively, samples must be shipped frozen. Samples must be cold upon arrival at VDL.

OFA Thyroid Registry: Please check with the laboratory on protocol for OFA Thyroid Registry. Samples must be cold upon arrival at VDL.

REPRODUCTIVE FUNCTION TEST

Estrone Sulfate: Mare must be more than 80 days post breeding. Submit 1 ml of serum on frozen gel packs.

GnRH response test: For detection of cryptorchism—Obtain a 1ml baseline serum sample for testosterone. Inject GnRH IM (2.2 µg/kg for dogs, 25 µg/cat or as decided by the veterinarian). Obtain a 2 hr post 1 ml serum sample. Ship samples on frozen gel packs. For detection of ovarian remnants—No pretest sample is necessary. Inject GnRH IM (2.2 µg/kg for dogs, 25 µg/cat or as decided by the veterinarian). Obtain a 2-3 week post 1 ml serum sample for progesterone level. Ship samples on frozen gel packs.

HCG stimulation test (Equine): Obtain a baseline 1ml serum sample for testosterone. Then inject HCG (6,000 to 12,000 IU/horse IV, actual dose may be decided by the veterinarian). Obtain 1ml post serum sample 30 to 120 min. later. Ship samples on frozen gel packs.

Progesterone or Testosterone: Submit 1 ml of serum for each test requested. Ship samples on frozen gel packs.

OTHER TESTS:

Digoxin: Obtain 1 ml serum sample 8-12 hr after last dose for trough levels. Ship sample on frozen gel packs.

Insulin: Fast dog until blood glucose < 60 mg/dl (generally requires 4 to 10 hours). Submit 1 ml of serum on frozen gel packs. Freeze sample if shipping is delayed more than 24 hours.

Trypsin-like Immunoreactivity (TLI for canine): Fast dog 12 hours. Submit 1 ml of serum on frozen gel packs. Freeze sample if shipping is delayed more than 24 hours.