

## Endocrinology Submission Guidelines

### General Submission Guidelines for Samples

We ask that the submission guidelines be reviewed. The condition and quality of the specimen received plays a major factor in the accuracy of test results. Please do not send whole blood. Serum is the preferred sample type for the majority of the endocrine tests we offer. Unless indicated below, the recommended specimen collection procedure is:

- Collect blood in a tube without any additives (e.g., a plain red top tube, **NO** SST tubes).
- Allow the blood to clot for approximately 30 minutes or longer to increase yield for sample test requirements.
- Centrifuge at a speed and time (~10 minutes) that allow for adequate separation and specimen volume.
- Transfer the serum into a tube properly labeled and appropriate for shipping and/or frozen storage (e.g., polypropylene or plastic tubes are recommended but only required for canine ACTH).
- Store the aliquoted serum in a freezer prior to shipping especially if the time before pick up will be 12 hours or more.
- Ship serum on cold packs, preferably using an overnight or 2 day courier service.
- Samples should optimally arrive either frozen or chilled.
- To insure proper sample handling and identification, please write legibly on tubes and accession forms.

Please do not use serum separator tubes (SST) for sample collection or shipping. Some brands have clotting additives that cause assay interference and affect results. When these tubes are used for shipping after centrifugation, the gel barrier can dislodge during transit, and this will usually ruin the sample. Do not send severely hemolyzed or lipemic samples. If you have any submission questions contact the Endocrinology Laboratory at 607-253-3673.

### Lag Time

Endocrinology lag time ranges are based on test set up day(s), frequency and the day the specimen is received. Our ranges also include weekends for accuracy. To assure efficient testing, plan shipping so the sample will arrive by the evening prior to the scheduled testing day. Contact the lab at 607-253-3673 or 3674 concerning the testing schedule and status of any sample. Please have your AHDC account number ready when making inquiries.

### Results Reporting/Consultations/Interpretations

Contact the Endocrinology Laboratory directly at **607-253-3674**, regarding any test results, interpretations, or sample discrepancies. We offer gratis re-testing of specimens upon request, if sample quality and volume allow. Consultations by veterinarians and qualified staff are also provided at no charge for testing done in our laboratory. We prefer not to interpret test results from other laboratories and may require a consulting fee if requested to do so. Please follow the Animal Health Diagnostic Center (AHDC) policy listed in the "Test Results" section in the front of this manual regarding animal owners contacting the lab. Veterinarians or the authorized submitter should have their AHDC account number and case accession for all endocrinology consultations. Please contact the Endocrinology Laboratory director 607-253-3796 or manager 607-253-3593 if you are experiencing unusual delays with lab results.

### Endocrinology Diagnostic Testing Protocols

Contact the laboratory (607-253-3674) for the latest recommended diagnostic tests, dosages for response tests (e.g., ACTH response, Dexamethasone Suppression, TRH), and current information regarding veterinary diagnostic endocrinology (adrenal, thyroid, reproductive, etc.). Some of this information is also available on our web site: [diaglab.vet.cornell.edu/endo](http://diaglab.vet.cornell.edu/endo)

### Specific Submission Guidelines

#### ACTH

An **EDTA** plasma tube (usually lavender top) **MUST** be used for specimen collection. Collect blood to the tube fill volume, gently mix by inversion, and chill immediately by refrigeration or immersion in an ice bath. Separate plasma from cells by centrifugation as quickly as possible for dogs and within 4 hours for horses. Centrifuge for 5-10 minutes (preferably in a refrigerated centrifuge) and transfer the plasma into a plastic (canine/equine) or coated glass (equine only) tube and freeze immediately. Ship on frozen cold packs using an overnight courier service. Plasma samples should arrive frozen (strongly recommended) or adequately chilled (i.e., kept near 4°C at all times).

## OFA Thyroid Registry Panel

Please contact the lab to obtain a printed copy of instructions or check the web site listed below. All specimens submitted for OFA certification must be serum from freshly collected blood obtained using a plain red top. Samples must arrive either chilled or frozen, but will be accepted unchilled (room temperature) if received *within* two days (48 hours) of the collection date. A completed AHDC accession form, OFA Application for Thyroid Database form and a check payable to the OFA (for initial animal registry fee), must also accompany the sample. Lab results will be either mailed, faxed or e-mailed and cannot be reported by phone. Samples severely lipemic or hemolyzed or that arrive unchilled after two days, cannot be accepted for OFA testing. Our web address: [diaglab.vet.cornell.edu/endo](http://diaglab.vet.cornell.edu/endo)

## Thyroid Panels:

The T4 (Thyroxine), T3 (Triiodothyronine), and Free T4 by equilibrium dialysis assays have been validated for testing in most common species and reference ranges are also usually available. The Thyroglobulin Autoantibody assay is canine specific, while the TSH assay can be used for testing canine and feline samples only. To avoid discrepancies it is important to clearly indicate the species and thyroid tests requested on the accession form.

Thyroid PANEL All Species	FT4d, T4, T3	Equine, Feline, Canine, & other species check with lab
Thyroid PANEL Full Feline	FT4d, T4, T3, TSH	Feline and Canine ONLY
Thyroid PANEL Full Canine	FT4d, T4, T3, TSH, TgAA	Canine ONLY
OFA Thyroid Registry PANEL	FT4d, TSH, TgAA	Canine ONLY with OFA paperwork for certification
Thyroid Registry Tests PANEL	FT4d, TSH, TgAA	Canine ONLY routine results, NO certification

## Thyroid Combinations and Response Tests:

T4/T3 Combination	T4, T3	Equine, Feline, Canine, & other species check with lab
T4/FreeT4 w/dialysis Combination	T4, FT4d	Equine, Feline, Canine, & other species check with lab
T4/FreeT4 w/dialysis/TSH Combin.	T4, FT4d, TSH	Canine & Feline ONLY
T4/TSH Combination	T4, TSH	Canine & Feline ONLY
FreeT4 w/dialysis/TSH Combin.	FT4d, TSH	Canine & Feline ONLY
T4/ThyroglobulinAutoAb Combin.	T4, TgAA	Canine ONLY
TRH or TSH Response T4/T3	T4, T3	Usually an equine diagnostic test
TRH or TSH Response Test T4	T4	Usually an equine diagnostic test
T3 Suppression Test T4/T3	T4, T3	A feline diagnostic test for hyperthyroidism
T3 Suppression Test T4	T4	A feline diagnostic test for hyperthyroidism

## Contract Testing and Special Request for Non-Routine Hormones and Other Immunoassay Testing

In addition to the tests listed in this manual, the Endocrinology Laboratory offers immunoassay service including assay set up, development and validation for non-routine hormones, biomarkers and other esoteric tests. This immunoassay service and expertise supports research in other departments at Cornell and other universities and is also utilized by the pharmaceutical and life science industries. The laboratory uses the Code of Federal Regulations 21 CFR Part 58 (Good Laboratory Practices) as guidelines to maintain quality and data integrity along with the developing AHDC quality system. Please contact the Endocrinology Laboratory manager 607-253-3593 or director 607-253-3796 with specific questions or inquiries. Thank you.