



# Canine Endogenous ACTH

## Indications for testing

### Differentiation Of Adrenal-dependant From Pituitary-dependent Hyperadrenocorticism

Endogenous ACTH is the most reliable test for accurately differentiating adrenal-dependent from pituitary dependent hyperadrenocorticism in dogs. ACTH concentrations are low when adrenal tumours are present, and expected to be normal or elevated with pituitary-dependent disease. In a small number of pituitary-dependent cases, ACTH can be falsely low. Potential causes for this include assay variability, pulsatile release of ACTH or poor sample handling.

### Differentiation Of Primary And Secondary Hypoadrenocorticism

Primary hypoadrenocorticism due to destruction of the adrenal cortex by immune-mediated inflammation, drug use, granulomatous disease or neoplasia is the most common cause of adrenal insufficiency in dogs. ACTH will be elevated due to lack of negative feedback from cortisol. Secondary hypoadrenocorticism is rare and caused by destruction or dysfunction of ACTH-producing cells of the pituitary, leading to low circulating ACTH.

## Collection Protocol

- Overnight fasting is recommended.
- Standard venepuncture. Draw blood into an EDTA tube. Spin immediately or use gravitational separation, then pour off the plasma into a tube or container with NO additives (e.g. yellow-top sterile pot).
- Red top blood tubes contain a clot activator and must not be used. ACTH degrades rapidly if exposed to heat. Refrigerate the plasma immediately and keep chilled during transportation. If the sample will be delayed, freeze the plasma and transport with ice packs.
- DO NOT freeze the unseparated EDTA sample - this will make the sample unsuitable for testing.

NOTE: Avoid stress in the 24 hours prior to testing.



Species:  
Canine



Specimen:  
Plasma  
(2 ml minimum)  
or EDTA whole  
blood (4 ml  
minimum)



Container:  
EDTA Tube