

# THYROID STIMULATING HORMONE (TSH)

**SAMPLE REQUIRED:**

Serum (0.5 mL) or clotted blood (1.5 mL)

**BLOOD TUBE REQUIRED:**

Plain (red top) or Gel (yellow top) tube

**Indications:**

To aid in the assessment of thyroid status in dogs. TSH production and secretion is controlled by negative feedback from the thyroid hormones T4 and T3, as well as by secretion of the hypothalamic hormone thyrotropin releasing hormone (TRH). Most cases of canine hypothyroidism are primary, due to impaired production of T4 and T3. Due to the loss of negative feedback, TSH is increased in many of these cases.

**Protocol:**

- No special preparations are necessary.
- Collect blood sample.
- Store the sample at 4°C. If transport to the laboratory will be delayed (> 12 hours), the sample should be centrifuged and the serum separated.

**Notes:**

- TSH results should be interpreted together with total and/or free T4 concentrations, as well as in conjunction with clinical signs and other clinicopathologic abnormalities that are supportive of hypothyroidism.
- Approximately 70 % of hypothyroid dogs have an increased TSH concentration.
- Certain drugs (e.g. glucocorticoids, carprofen) may lower TSH concentrations.