



TEST SERVICE UPDATE: Canine Pancreatic Lipase

Introduction

Phoenix Lab is pleased to announce the addition of the VetScan® semi-quantitative Canine Pancreatic Lipase Test. This test is specific for the determination of pancreatic-specific lipase levels in canine serum or plasma in EDTA, sodium and lithium heparin sample tubes (4). Excessive hemolysis may obscure the results and could be rejected, necessitating submission of a new sample. Icteric or lipemic samples will not affect test results.

Canine Pancreatic Lipase (cPL) Test Code: 1000	Call Lab for Pricing	Turn Around: Daily AM/PM
In-House Combo Test Code (cPL&TLI) 1005	Call Lab for Pricing	Turn Around: Mon. Wed. Fri Sample: Serum
Canine GI Panel: cPL, TLI, Cobalamin, Folate Panel Test Code: 1012	Call Lab for Pricing	Turn Around: Mon. Wed. Fri Sample: Serum/Protect from light/Freeze
In House: cPL + Cobalmin & Folate: 1013	Call Lab for Pricing	Turn Around: Mon. Wed. Fri Sample: Serum/Protect from light/Freeze

SO4689: PLI-Pancreatic Lipase is still available as a send out test with a 3-5-day turn-around time on the acute sample sent to Phoenix for testing. Submit 1 mL of RTT or SST serum, patient fasted 12-18 hrs. Diabetic patients should be fasted 6-8 hrs.

Canine Pancreatic Lipase (cPL) Interpretation

<200 µg/L is a Normal Result: Pancreatitis unlikely
200 µg/L-400 µg/L is Abnormal and may be indicative of Pancreatitis. (Patients should be re-evaluated in 2-3 weeks if possible.)
>400 µg/L is Abnormal with Pancreatitis most likely

Clinical Assessment of Vetscan cPL Test

Pancreatitis is the most common disorder of the exocrine pancreas in dogs and is a common differential diagnosis for patients with nonspecific gastrointestinal signs such as abdominal pain and vomiting (4). Inflammation of the pancreas can disrupt the flow of enzymes into the digestive tract. These enzymes can leak out of the pancreas into the abdominal cavity and cause severe discomfort. The enzymes may begin to break down fat and proteins in the pancreas and can affect nearby organs, such as liver and kidneys. Pancreatitis can progress rapidly in dogs if not recognized and treated quickly. With timely treatment and monitoring, the illness may be cured without lasting damage to the organs.

Inflammation of the pancreas also leads to the leakage of pancreatic lipase into the peripheral blood stream. Published studies have shown abnormally elevated concentrations of pancreatic lipase in plasma and serum may be indicative of primary pancreatitis or a variety of other diseases of pancreatic or non-pancreatic origin, which may be causing secondary pancreatitis. Pancreatic lipase concentration in peripheral blood is well accepted as a more reliable method of diagnosis than serum amylase or lipase activities. (1,2). Because there are multiple sources of amylase and lipase in the body, measuring the total concentration of these analytes is an unreliable method for detecting pancreatitis (3). Thus, a pancreatic-specific lipase assay is useful in determining the health of the pancreas, and an elevated cPL is suggestive of pancreatitis, either primary or secondary, in the presence of supporting clinical signs.

For any questions regarding your cPL results, or for a patient consult, please call the lab at (800) 437-0043

References:

- 1) McCord, K. (2012). "A multi-institutional study evaluating the diagnostic utility of the spec Cpltm and SNAP Cpltm in clinical acute pancreatitis in 84 dogs." *J Vet Intern Med* 26(4): pp.888-96.
- 2) Steiner, J and Newman, S (2008) "Sensitivity of Serum Markers for Pancreatitis in Dogs with Macroscopic Evidence of Pancreatitis." *Veterinary Therapeutics Winter* 9.4; pp 263-73
- 3) Steiner, J (2017). "Chapter 290: Pancreatitis: Diagnosis and Treatment" in Ettinger, S., Feldman, E., Cote E. ed. *Textbook of Veterinary Internal Medicine Expert Consult*, 8th ed. 2 vols. Saunders, pp 1684.
- 4) Cridge, H., MacLeod, A.G., Pachtinger, G.E., Mackin, A.J., Sullivant, A.M., Thomason, J.M., Archer, T.M., Lunsford, K.V., Rosenthal, K., Wills, R.W., (2018). "Evaluation of SNAP cPL, Spec cPL, Vetscan cPL Rapid Test, and Precision PSL Assays for the Diagnosis of Clinical Pancreatitis in Dogs." *J Vet Intern Med* 32: pp. 658-664