# Diagnosis of Pancreatitis in Dogs and Cats

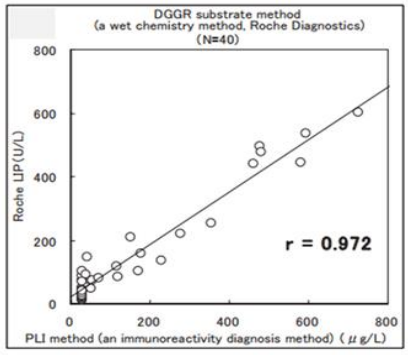
In **skyla® Diagnosis-II Panel,** lipase item (LIPA) with DGGR substrate method was observed a very good correlation, more than 95%, with Pancreatic Lipase Immunoreactivity (PLI). The Pancreatic Lipase Immunoreactivity (PLI), is the most superior in sensitivity and specificity as a pancreatitis marker for the dogs and cats at present.

LIPA with DGGR substrate method in **skyal® VB1** is a very effective diagnostic product for the rapid screening of pancreatitis.

## Diagnosis

### skyla® Diagnosis-II Panel

- **Correlation of the DGGR substrate method for the lipase activity by Roche cobas and Pancreatic Lipase Immunoreactivity (PLI) was excellent with a correlation coefficient (r) =0.972.** (Kentaro Nakamura, et al., 2010)



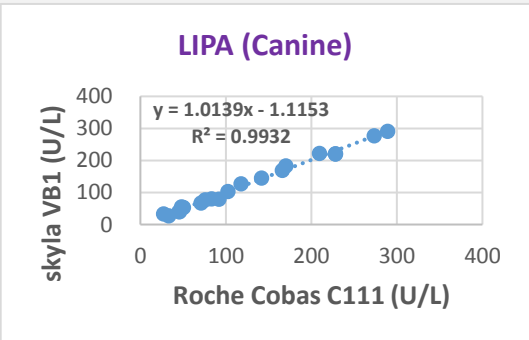

- **LIPA >125 U/L (Dog), LIPA>35 U/L (Cat)**

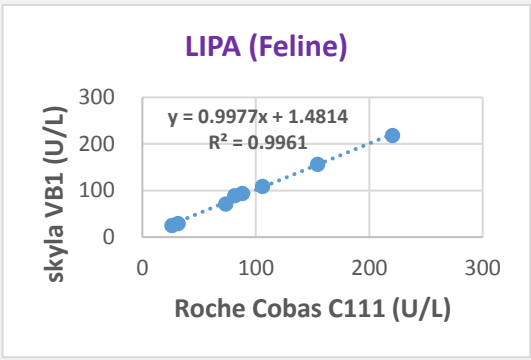
  **Maybe combined with elevations of hepatic enzymes (ALT, AST, ALP), hyperbilirubinemia, hyperglycemia, azotemia, electrolyte imbalances and hypocalcaemia can be seen on the biochemical profile.**

- CBC findings with severe pancreatitis in dogs, may include neutrophilia, thrombocytopenia and anemia. In cats, may include anemia, hemoconcentration, leukocytosis and leukopenia..
- Abdominal radiography is a useful diagnostic tool for pancreatitis.
- Histopathological examination of the pancreas is considered the gold standard for the diagnosis and classification of pancreatitis.

- **Correlation of lipase activity with DGGR substrate method between skyla® VB1 LIPA and Roche Cobas C111 observed very good correlation, $R^2$>99% both for canine and feline.**

| Species | $R^2$ | Slope | Intercept | Sample No. | Conc. Range of samples |
|---|---|---|---|---|---|
| Canine | 0.9932 | 1.0139 | -1.1153 | 20 | 27-289 U/L |
| Feline | 0.9961 | 0.9977 | 1.4814 | 8 | 26-220 U/L |



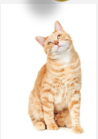
## Clinical Signs

- The exact cause of pancreatitis is not known, in many cases it appears to occur spontaneously. Mild pancreatitis may remain subclinical. More severe pancreatitis may present with anorexia, vomiting, lethargy, dehydration, abdominal pain, diarrhea, fever, icterus and weight loss. Even with severe pancreatitis in cats, present with even less specific clinical signs than dogs do.
- These symptoms could easily be attributed to other diseases. Vomiting and abdominal pain are hallmarks of this disease in dogs, but in cats vomiting may be absent or intermittent and abdominal pain is rarely recognized. Diarrhea maybe associated with pancreatitis or secondary to concurrent gastrointestinal disease.

## Risk Factors

- For dogs, there are a number of causes and risk factors that can bring on pancreatitis, among them including a high-fat diet, history of dietary indiscretion, obesity, hypothyroidism, severe blunt trauma, diabetes mellitus, certain medications or other toxins.

- For cats, most cases of pancreatitis cannot be determined. Where a cause is found, it is usually one of the following, infection with feline herpesvirus, toxoplasmosis, feline infectious peritonitis or feline parvovirus, and obesity, high-fat diet, certain drugs, hepatic lipidosis and trauma.



## Treatment

- Supportive and symptomatic treatment is common used to manage pancreatitis. It is better to find and treat the underlying cause if at all possible. The underlying cause as well as supportive care include pain relief, anti-nausea medication, antibiotics for bacterial infection, fluids and nutritional support. Supportive care such as intravenous fluids to prevent or treat dehydration and correct electrolyte imbalances.
- Optional treatment depending on the cause and symptoms maybe need to surgery to remove necrotic pancreatic tissue.
- Food for pancreatitis should contain highly digestible nutrients and low-fat.