Canine CRP for Veterinary Medicine.
C-Reactive Protein (CRP) is a reliable marker for infectious and chronic inflammatory diseases, as well as, tissue injury in dogs. As an acute phase inflammatory response protein, CRP is produced and released by hepatocytes in response to increased levels of circulating pro-inflammatory cytokines, such as interleukin-6. Elevated CRP levels in dogs are observed in post operative conditions, dogs with infectious disease (leptospirosis, parvovirus, etc.) and dogs with chronic inflammatory diseases (inflammatory bowel disease, allergic and immune mediated disease).

**Canine CRP- Structure and Function**

Approximately 15 years ago canine CRP was isolated and characterized. It is a cyclic pentameric plasma protein consisting of five identical non-covalently bound subunits with a combined molecular mass of 100 kDa. It undergoes Ca²⁺-dependent binding to different target molecules of microbes and cell membrane residues, as well as, to cell nuclear materials. This binding facilitates their clearance from the blood stream.

**CRP in Veterinary Practice**

Pets are living longer healthier lives due to developments in veterinary medicine. Even so, all animals are faced with illness or disease from time-to-time. In normal dogs, it is generally accepted that serum levels of canine CRP are usually well below 30 mg/L. During ongoing systemic inflammation or more serious infectious disease, serum levels of canine CRP increase quite rapidly to levels well above 30 mg/L. Elevated levels of canine CRP can be detected within 4-6 hours following disease onset, making CRP monitoring a useful tool for disease diagnosis and management.
New Rapid CRP Assay for Veterinary Medicine

**One Step Assay for Easy Handling and Quick Turn-Around Time**

**Power On**

1. Turn on LifeAssays® Veterinary Reader and insert the disposable algorithm chip provided with LifeAssays® Canine CRP kit.

**Add sample**

2. Collect 5 µl canine serum using a glass capillary and drop it into the Reagent Vial.

**Mix Reagent**

3. Vortex the Reagent Vial.

**Measure**

4. Place Reagent Vial in the LifeAssays® Veterinary Reader. The Results will be displayed automatically after 11 minutes.

**Presentation of Results**

5. Remove reagent vial for safe disposal.

**Automatic Measurement: The Convenience You Require!**

**LifeAssays® Canine CRP Technical Data:**

- Small sample volume: 5 µl
- Canine Serum Samples
- Short measurement time: 11 minutes
- Linear range: 10 - 140 mg/L
- Measuring range increased by dilution of sample.
Pets are an important part of many people’s lives. We need them as much as they need us. That is why LifeAssays® AB has developed a unique patented rapid test for canine CRP. By providing veterinary practitioners with this valuable laboratory test in-house, early disease intervention and more effective treatment can be provided for dogs helping them live happier and healthier lives. And everyone knows that when dogs are happier, their owners are too.

**LifeAssays® Canine CRP**

LifeAssays® Canine CRP system consists of a bench-top instrument (LifeAssays® Veterinary Reader), single-use reagent tests and disposable algorithm chip. All reagent identification data, as well as, a self-executable algorithm is contained on the disposable algorithm chip providing better traceability and improved system control. The chip is inserted into the LifeAssays® Veterinary Reader when a new reagent kit is opened and remains in the reader until the last reagent vial in the kit is disposed of. Thus, reagent upgrades are easily provided with each new reagent kit.