

Canine CRP (C-Reactive Protein)

SAMPLE REQUIRED:

Clotted blood (1.0 mL) or
Serum (0.5 mL)

BLOOD TUBE REQUIRED:

Plain or Gel (Red or Gold top) tubes

Indication

For detection and monitoring of a systemic inflammatory response in dogs.

Collection Protocol

- A fasted sample is preferred to avoid lipaemia (although not essential).
- 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.

Clinical Information and Applications

CRP is a major acute phase protein (APP) in canines and forms part of the acute phase inflammatory response. Any inflammatory reaction that cannot be contained locally will “spill over” and initiate a systemic response, resulting in hepatic synthesis and release of CRP into the circulation. In diseases that are predominantly inflammatory in nature, integrated measurement of the severity of inflammation may be superior to measurement of organ specific marker enzymes.

KEY BENEFITS OF C-REACTIVE PROTEIN (CRP) AS “THE SYSTEMIC INFLAMMATORY MARKER” IN DOGS:

- CRP is a specific and objective marker for systemic inflammation. It can identify systemic inflammation when other indicators may be inconclusive e.g. normal body temperature, normal leucogram, or to help differentiate a stress/corticosteroid leucogram from an inflammatory leucogram.
- Not affected by anti-inflammatory doses of corticosteroids, NSAIDs or opioid therapy.
- Real time marker – rises after 4 hrs, peaks at 24 hrs and clears in 48-72 hrs after cessation of an inflammatory stimulus.
- Large diagnostic window – 10 to 1000 fold increase in concentration.
- Quantitative – use CRP to quantify the severity of inflammation, monitor disease burden and progression, monitor post treatment and post-operative inflammation, and to monitor recovery and for potential relapse of disease.