

TURBOVET CRP CANINE

Turbidimetric method for the quantification of C-reactive protein (CRP) in dog serum samples

In dogs, as in humans, the serum concentration of C-reactive protein (CRP) is very low in healthy animals (few mg/L) but raises rapidly after an inflammatory stimuli. CRP is used in the diagnosis and monitoring of inflammatory or infectious diseases. CRP concentration in serum correlates with the severity of the inflammatory condition and reflects the evolution of the disease, which makes it a very useful test for the evaluation of the efficacy of the treatments.

Main features

- **Automated:** easy to adapt to different clinical chemistry analyzers
- **Antibodies and calibrators** specific of the canine species
- Not affected by hemolysis
- **Excellent precision and reproducibility**

Analytical principle

CRP from serum reacts with anti-CRP antibodies covalently bound to latex particles. The immun-aggregates formed originate an increase of turbidity in the reaction media, which is determined by a measurement of Absorbance. The increase of turbidity is proportional to CRP concentration in the sample.

Type of assay	Particle enhanced turbidimetric immunoassay (latex)
Format	2 liquid reagents, ready to use
Calibration	Acuvet Biotech reference material for canine CRP
Range	0 - 150 mg/L
Security range (prozone)	> 300 mg/L
Interferences	No interferences by hemoglobin (20 g/L), bilirubin (0.150 g/L) or triglycerides (10 g/L, intralipid)

Precision*		
Concentration (g/L)	Within-run CV(%)	Whithin-day CV(%)
0.135	1.22	1.07
0.036	1.60	2.84

*20 days study in an Olympus AU400 analyzer. Every day samples were analyzed in duplicates, in two runs.

Assay procedure*

- 1** Add buffer (R1, 230 μ l)
Add sample (S, 3 μ l)
Add immunoparticles (R2, 70 μ l)
1st reading (M1)
M1: Abs 600nm
- 2** Incubate 5 min
2nd reading (M2)
M2: Abs 600nm
- 3** Results
M2-M1 \rightarrow C

*Recommended procedure. Volume, time and wavelength may be adjusted depending on the analyzer features