

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 infammatory or infectious diseases. CRP concentration in serum correlates with the severity of the inflammatory condition and reflects the evolution of the disease, wich 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 immunoaggregates 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 immunoasay (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 (15 g/L) or triglycerides (10 g/L, intralipid)	

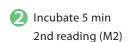
	Precision*	
Concentration (g/L)	Within-run CV(%)	Whithin-day CV(%)
0.135	1.22	1.07
0.036	1.60	2.84

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

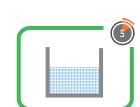
Assay procedure*

1 Add buffer (R1, 230 μl) Add sample (S, 3 μl) Add immunoparticles (R2, 70 μl) 1st reading (M1)

M1: Abs 600nm



M2: Abs 600nm



R1, S, R2



M2-M1 → C



^{*}Recommended procedure. Volume, time and wavelenght may be adjusted depending on the analyzer features

