OmniChek™-SAA – Be Sure, OmniChek It!

OmniChek™-SAA

OmniChek™-SAA is a rapid test to assess the immune health status of the cat that is easy to use and simple to interpret. With just a pin prick of blood you can detect and track acute inflammatory conditions in less than 10 minutes.

Serum Amyloid A – How it works

Serum Amyloid A (SAA) is the only practically useful biomarker when it comes to detecting inflammation in your cat. When a cat's immune status is challenged, for example because of an infection, the immune system reacts by generating signals which lets you know there is a problem. SAA is one of those signals that rises significantly within hours of a challenge. SAA offers significant advantages when compared to relying on a full blood count. A common problem is the rapid rise in white blood cells that can occur during a veterinary health check, a result of fear, apprehension and excitement [1]. Is the cat sick, or did the white cells just spike because of stress? SAA will not do that. If it is high in the blood at the time of sampling, it was high before the cat arrived at the vets, giving a clear indication of an underlying pathology.

Applications*

OmniChek™-SAA is a useful diagnostic support tool for assessing general health and wellness of the cat. An elevated level is a clear indication of an underlying pathology. Typical applications include:

- Confirming the presence of an active systemic inflammatory condition.
- Detection of sub – clinical inflammation where there is a suspicion something is wrong.
- Detection of infection.
- Real time monitoring of recovery of disease activity
- An indicator to prompt for more detailed diagnostic testing.

Interpretation of Results

3 Lines
< 10 µg/ml

2 Lines
10 – 50 µg/ml

1.5 Lines
50 – 400 µg/ml

1 Line
>400 µg/ml

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*A definitive clinical diagnosis should only be made after all clinical and laboratory findings have been considered.

Technical Data

- Sample type: Whole blood (serum or plasma can also be used although the test is designed to avoid the necessity for blood separation)
- Sample volume: 5 µl of whole blood or 3 µl of serum or plasma
- Test time: Results are visible in as little as 2-3 minutes although the recommended test time is 10 minutes. The more familiar you become with the test, you can see results appearing as the test is still running.
- Measuring range: OmniChek™-SAA will detect SAA in the range 0-400 µg/ml.
- Absence of false positives: Unlike other rapid tests, for example CRP, there is no possibility of any false low results. With OmniChek™-SAA, when its low, you know for sure it is low.

Sensitivity and Specificity Data

Blood samples were collected from 85 cats routinely referred to a hospital based veterinary clinic. Blood samples were taken for a full blood count. All samples were run on an OmniChek™-SAA in addition to analysis on an ELISA.

- Sensitivity: 94 %
- Specificity: 89%
- Accuracy: 90%

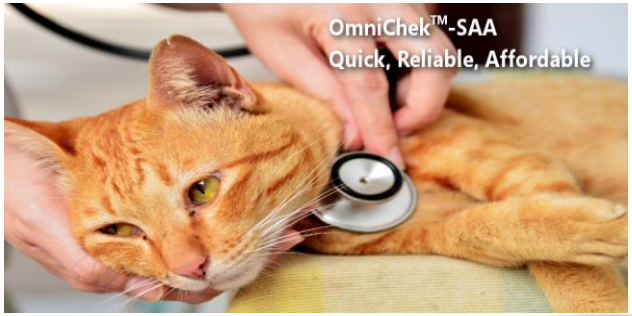
White Cell Counts vs SAA in Assessment of Inflammation

Analysis of white blood cells are currently the only means of assessing inflammation in cats. However, several publications have shown a poor correlation between inflammation and white cell counts, yet they are still used to assess inflammation. Using SAA helps to overcome this uncertainty [2].

The data in *Fig 1* shows the white cell count in clinically normal cats vs cats with inflammation. In comparison, the data in *Fig 2* show the SAA levels in clinically normal cats vs cats with inflammation. The data presented demonstrates the power of SAA in enabling a clear distinction between cats that have no inflammatory condition from those with an acute inflammatory condition, in contrast to the use of white blood cells.

References

1. Leukogram patterns. Cornell University College of Veterinary Medicine: http://www.eclinpath.com/hematology/leukogram-changes/leukogram-patterns/
2. Tamamoto, T, Ohno, K, Ohmi, A. Verification of measurement of the feline serum amyloid A (SAA) concentration by human SAA turbidimetric immunoassay and its clinical application. J Vet Med Sci 2008; 70: 1247–1252.



Data Showing the Benefits of using SAA in Comparison to White Blood Cells

Fig 1

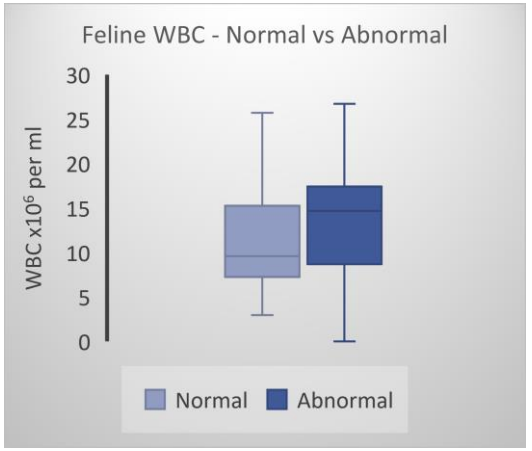
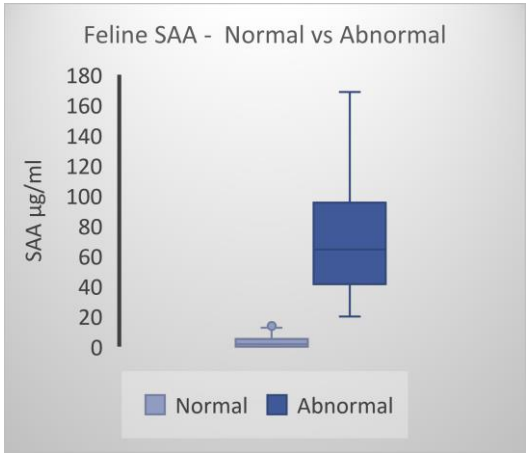


Fig 2



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