

Vcheck Feline SAA

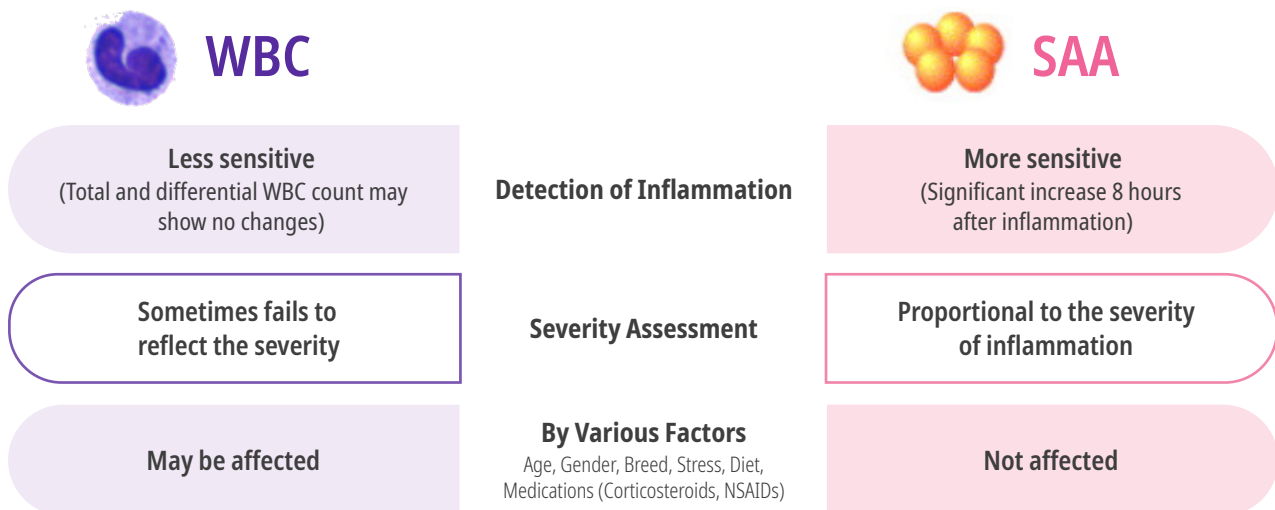
A marker for early screening
of inflammation in cats



What is Serum amyloid A (SAA)^{1,2}?

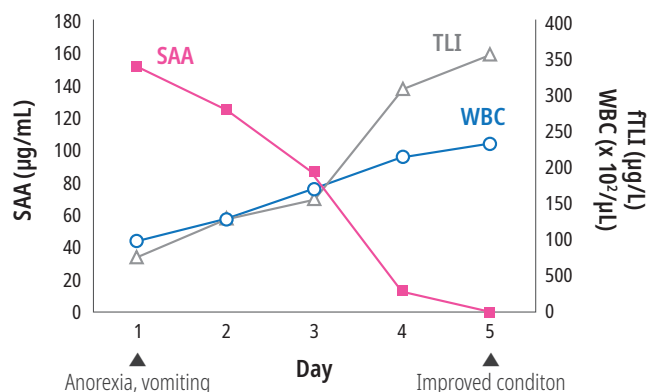
- Major acute-phase proteins (APPs) produced in the liver
- Exists at very low concentrations in healthy cats
- Increase within 8 hours after inflammatory stimulus
- Rising > 50-fold (up to 1,000-fold) and peaking at 2 days
- Decreases within 24 hours after resolution

The advantages of SAA over WBC³



In a cat being treated for acute pancreatitis³,

- **Patient information** : 6 year old, neutered male, domestic shorthair
- **History** : Treated with prednisolone for asthma for 9 months
- **Clinical sign** : Anorexia, vomiting, and fever for 2 days
- **Blood test** : Normal WBC (9800/uL), Abnormal SAA (153.5 ug/ml), and azotemia
- **Diagnosis** : Acute pancreatitis based on the findings of ultrasonography and histopathology



< Time-course of changes during treatment with plasma transfusion, intravenous fluids, prednisolone, and antibiotics >



- SAA concentration correlated well with the clinical signs whereas the WBC count did not.
- SAA concentration is not affected by corticosteroid administration, in contrast to the WBC count.

How can SAA be utilized in cats?

- **Routine screening for inflammation during health check-ups**
If SAA levels are elevated, it indicates inflammation somewhere in the body.
- **Assessing the severity of inflammation in sick patients**
SAA levels quantitatively reflect the severity of inflammation.
- **Monitoring treatment progress in postoperative or inflamed patients**
Discharge can be considered once SAA levels normalize (< 5 µg/mL).

When does SAA concentration increase³⁻⁸?

Surgery

Preoperative Assessment, Monitoring Response to Treatment, and Early Detection of Complications

Inflammatory diseases

Feline infectious peritonitis (FIP), Feline lower urinary tract disease (FLUTD), Hepatitis/cholangitis, Upper respiratory tract infection, Pancreatitis, Gingivostomatitis, Gastroenteritis, Pneumonia, Pyometra, Immune-mediated diseases, etc.

Tumor

Mammary tumor, Lymphoma, Gastrointestinal (GI) lymphoma, Mesothelioma, Adenocarcinoma, Squamous cell carcinoma, Solid tumor, Round cell tumor, etc.

Other Diseases

Injury, Infectious diseases (Panleukopenia, Calicivirus, Herpesvirus, Hemoplasmosis), Chronic kidney disease, Congestive heart failure, Traumatic diseases, Systemic inflammatory response syndrome (SIRS), Sepsis, Ketoacidosis, etc.

* SAA concentrations may be low because sufficient SAA cannot be produced if the body has adapted to chronic inflammation or if liver function is reduced.

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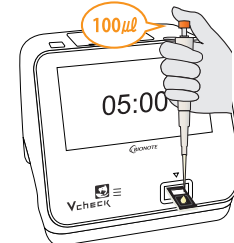
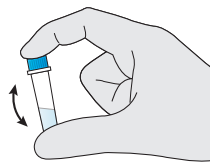
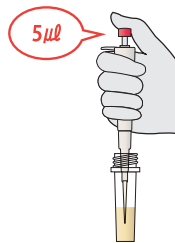
Specifications

- Species : Cat
- Sample : Serum, Plasma (heparin) 5 μ l
- Testing time : 5 minutes
- Measurement Range : 5 ~ 200 μ g/mL
- Storage Condition : 1 ~ 30 °C



Test Procedure

- 1 Draw 5 μ l of serum or heparinized plasma and add it into an assay diluent tube
- 2 Close the tube cap and shake for 5-6 times to mix thoroughly
- 3 Add 100 μ l of mixture in the sample hole of the test device



< 5 μ g/mL	5~10 μ g/mL	> 10 μ g/mL
Normal	Equivocal Systemic inflammation possible Re-evaluation recommended	Abnormal Consistent with inflammation

Ordering Information

Product No.	Product Name	Storage Condition	Packing Unit
VCF138DD	Vcheck Feline SAA 3.0	1 - 30 °C	10 Tests/Kit

Evaluation Studies



Serum amyloid A protein as a marker of inflammation in cats with *Aelurostrongylus abstrusus*.
World Small Animal Veterinary Association Congress (WSAVA 2021)

Reference:

- 1) Changes in concentrations of serum amyloid A protein, α 1-acid glycoprotein, haptoglobin, and C-reactive protein in feline sera due to induced inflammation and surgery. Vet. Immunol. Immunopathol. 1999; 68, 91–98.
- 2) Validation of an automated immunoturbidimetric assay for feline serum amyloid A. BMC Vet Res. 2022 Sep 28;18(1):359.
- 3) Time–course monitoring of serum amyloid A in a cat with pancreatitis. Vet Clin Pathol. 2009 Mar;38(1):83-6.
- 4) A Clinical Investigation on Serum Amyloid A Concentration in Client-Owned Healthy and Diseased Cats in a Primary Care Animal Hospital. Vet Sci. 2020 Apr 15;7(2):45.
- 5) Evaluation of feline serum amyloid A (SAA) as an inflammatory marker. J Vet Med Sci. 2003 Apr;65(4):545-8.
- 6) Serum amyloid A as a prognostic marker in cats with various diseases. J Vet Diagn Invest. 2013 May;25(3):428-32.
- 7) Serum amyloid A in the diagnosis of feline sepsis. J Vet Diagn Invest. 2017 Nov;29(6):856-859.
- 8) An Update on Feline Calicivirus. Schweiz Arch Tierheilkd. 2022 Mar;164(3):225-241.



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