Serum Amyloid A (SAA)

A parameter to distinguish between inflammatory and non-inflammatory diseases.

Acute-phase reactions are complex reaction cascades that are triggered by the organism as a result of tissue damage.

Acute phase proteins (AAP) support immune reactions and play an important role in the progression of inflammation, infection or tissue injury. Important AAPs include C-reactive protein (CRP), haptoglobulin, fibrinogen, complement system components and serum amyloid (SAA). In the case of inflammations, infections and tissue injuries, the systemic reaction of the body leads to a rapid and sometimes drastic increase in AAPs, which can reach a concentration of more than 100 times higher than the normal level. The increase in AAPs is accompanied by an increase in the number of leukocytes, increased vascular permeability, fever and changes in the steroid balance.

Serum amyloid A (SAA) is an important acute phase protein whose rapid synthesis in the liver is primarily regulated by the induction of IL-1 and IL-6.

SAA is extremely sensitive in horses and cats. The rapid increase in SAA concentration within 3 - 24 h (Sasaki, K et al, 2003) in horses and its decrease within a few days (HH Petersen et al, Vet Res 35, 2004) is therefore ideally suited as a screening parameter for acute inflammatory reactions and for therapy monitoring. SAA is a so-called positive acute phase protein, i.e. it increases when the inflammatory system is stimulated. The concentration of SAA in serum or plasma is increased by:

- Infections (parasitic / bacterial / viral)
- Trauma
- Tumors
- Autoimmune diseases
- Tuberculosis (TB)

United Kingdom
Mast Group Ltd.
Mast House, Derby Road
Bootle, Merseyside, L20 1EA

Tel: +44 (0)151 472 1444
Fax: +44 (0)151 944 1332

Germany
Mast Diagnostica GmbH
Feldstraße 20
DE-23858 Reinfeld

Tel. +49 (0) 4533 2007 0
Fax +49 (0) 4533 2007 68

France
Mast Diagnostic
12 rue Jean-Jacques Mention
CS91106, 80011 Amiens, CEDEX 1

Tél: +33 (3) 22 80 80 67
Fax: +33 (3) 22 80 99 22

www.mast-group.com