

Focused on Veterinary Diagnostics

FASTest[®] IgG bovine ad us. vet.

IgG immune screening on-site for the determination of the health status of calves and cows

Fast test for the semiquantitative detection of IgG antibodies (immune status) in native blood, whole blood, plasma and serum of cattle

Fast indirect detection of IgG antibodies

Clinical suspicion "immune deficiency syndrome"

Fast, long-term and effective breeding and stock prophylaxis

CALF

- "weak calves", ND, EBP
- routine test during pre-purchase inspection

COW: routine test

– before birth

Identification of "weak immune" mother animals/Prediction of poor colostrum quality

– after birth

Precaution/prediction of puerperal disorders



- Simple test procedure with native blood (without anticoagulant), whole blood (with anticoagulant), plasma or serum
- Fast test interpretation after 5 minutes
- Reliable clinical diagnostics
- Sensitivity 97.7% & Specificity 92.4%
- Storage at room temperature (15-25° C)
- Long shelf life
- Compact test box with 2 or 10 tests

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The immune system protects the body from invasion of various pathogens (antigens). A part of this protection, the humoral immune defence, is guaranteed by the formation of blood soluble antibodies (immune globulines). The immune globulines G (IgG, gamma globulines) belong to the antibody class G mainly directed against viruses and bacteria.

Due to the special placenta conditions, newborn calves often show no to hardly noteworthy IgG. Therefore, the most important base for an immunoprophylaxis is an adequate supplementation with IgG. This IgG transfer mainly is based on the ingestion and resorption of colostrum (adequate passive transfer) directly after birth up to maximal 24 h later. It turns out that both time of colostrum uptake and the amount of IgG taken up have a significant influence on the serum IgG concentration of the calf.

Failure of passive transfer (FPT) may be caused by inadequate suckling (reduced vitality, neonatal respiratory depression a.s.o.), way of colostrum application, very low levels of IgG in the colostrum, inadequate absorption of IgG or environmental stress. The consequences of an immune deficiency syndrome (IDS) are weak calves with a higher vulnerability for infectious newborn diseases like enzootic pneumonia of calves, diarrhoea (neonatal calf diarrhoea; calf scours) and other septicaemic diseases.

The incidence for cows (dystocia, metritis, mastitis a. s. o.) in the peripartal period is as high as in no other farm animal. Beside energetic shortage, especially the concentration of IgG (esp. IgG1) affects the immunity before and after birth. Latest investigations show following IgG1 concentrations in healthy cows with normal parturition and physiologic postpartal period:

- Ø 38 mg / ml at 7th month of gestation
- Ø 15 mg / ml physiologically low concentration peripartal
- Ø 30 mg / ml increasing from 4th month post partum

Hence, healthy cows show only then an undisturbed postpartal period after birth with or without caesarean sections when the IgG concentration is physiological or just under. If the intrapartal IgG concentration is already significantly decreased (< 15 mg/ml), an increased incidence of genital associated diseases will be seen in the peripartal period.

The optimal test time slot using **FASTest® IgG bovine** is between 24 to 48 h (max up to 7 days) post natum in calves and from 3rd to 7th day post partum in cows.

FASTest® IgG bovine enables the veterinarian on-farm and without any technical costs to confirm (**FASTest® IgG bovine**: IgG ≤ 12 mg/ml) or to exclude (**FASTest® IgG bovine**: IgG > 12 mg/ml) a suspicion for FPT/IDS in the cow as well in the calf. Hence, the immune state of cows as well as calves can be determined optimally during peripartal period. As a result, the rest time, delay time and the open days are reduced, also there is a clear reduction of calf losses.

Test procedure



Test interpretation



IgG ≤ 12 mg/ml: Suspicion for partial to complete lack of IgG



IgG > 12 mg/ml: Optimal Passive Transfer / No lack of IgG



Evaluation via colour intensity of test and control line

An immune deficiency syndrome (positive **FASTest® IgG bovine**) often leads to secondary diseases like e.g. the neonatal calf diarrhoea. With diarrhoea, parallel tests like **FASTest® BCV Strip**, **FASTest® CRYPTO Strip**, **FASTest® E.coli-K99 Strip**, **FASTest® ROTA Strip**, **FASTest® GIARDIA Strip** and the combined tests **FASTest® D4T bovine** and **FASTest® CRYPTO-GIARDIA Strip** are recommended.

Distribution: