

IDEXX IBD Ab/IBD-XR Ab Tests

Detect more variant types of IBD viruses

Infectious bursal disease (IBD) or Gumboro disease is a viral disease affecting chickens at various ages.

In the first two weeks of age, IBD variants can cause atrophy in the bursa and early immune suppression. From 3–6 weeks of age, classical IBD strains and very virulent IBD (vvIBD) can cause the bursa to become swollen and sometimes hemorrhagic. The bursa then quickly regresses to a small size, leading to suppression of the immune system or, in the case of vvIBD viruses, a higher percentage of mortality. Symptoms include anorexia, incoordination and depression. Affected birds are more susceptible to a variety of infectious agents, such as *E. coli*, *Staphylococcus* spp., *Clostridium* spp., and respiratory viruses, including live respiratory

vaccines (rolling reactions). In addition, the clinical picture and immune suppression effect can be enhanced by chicken anemia virus (CAV) coinfections. Economic losses may approach 20% in an infected flock, and subsequent flocks may become infected from contaminated living quarters.

An assessment of immune status in the broiler breeders and/or day-old progeny, as well as serologic identification and definition at the processing plant, requires a measurement of antibodies to IBD in serum. Enzyme immunoassay systems have proven efficacious in the quantification of antibody levels to IBD, and facilitate the monitoring of immune status in large flocks, helping to establish baselines for a preventive medicine program on the farms.

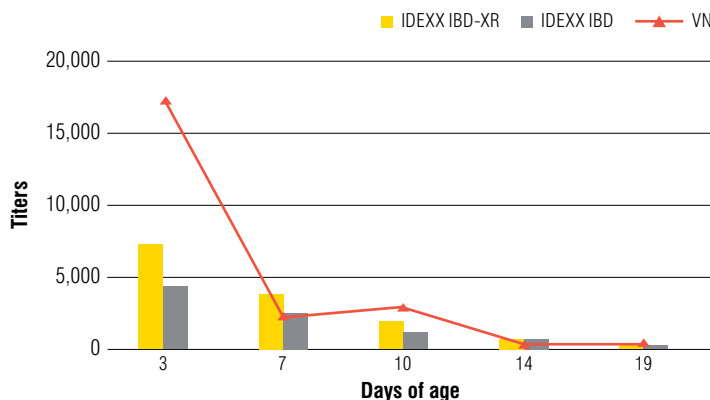
Passive immunity

Both IDEXX ELISA systems have an excellent correlation with virus neutralization (VN) for the maternal antibodies decay. The main difference between the two tests is the ability of IDEXX IBD-XR to detect more variant types of IBD viruses, which is important when broiler breeder operations are using inactivated vaccines that contain different IBD-variant types of immunogens.

Also, the rate of decay of the maternal antibodies was comparable between the two IBD and IBD-XR ELISAs. Therefore, both kits still accurately identify the age when a flock becomes susceptible to field challenge or live IBD vaccines.

By measuring passive immunity with IDEXX IBD, you can use the Deventer formula to predict the appropriate date(s) for field vaccination.¹

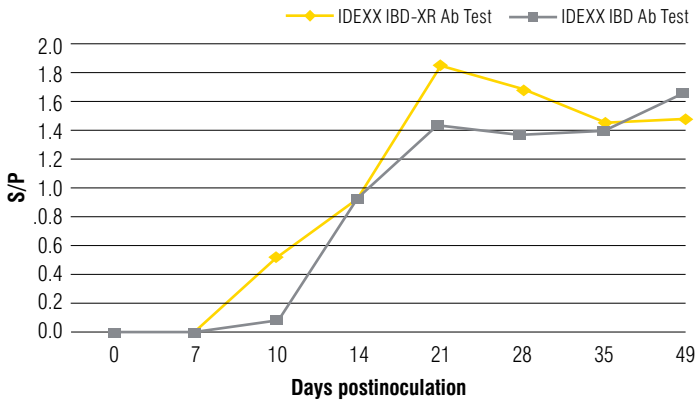
Maternal antibody decay by virus neutralization, IDEXX IBD-XR Ab and IDEXX IBD Ab Tests



Study design: 30 chickens per group were included in this study. Serum samples were taken from day 3 through day 21. These progeny were from broiler breeders that received two inactivated IBD vaccines that included variant immunogens in the antigen formulation.

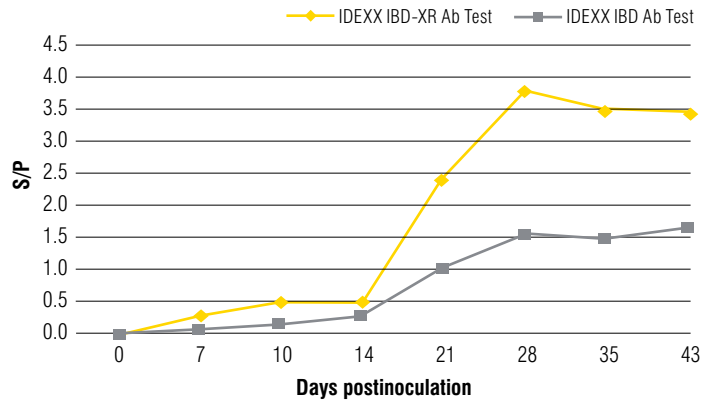
Active immunity

Serum response against classical IBD



Both kits can detect active immunity between 7 and 14 days postinoculation. Both kits detect classical IBD viruses at similar S/P levels.

Serum response against Delaware E



This figure shows the expanded detection characteristics of the coated plate in IDEXX IBD-XR Ab ELISA as compared to IDEXX IBD Ab (such as shown for Delaware E).

For more information about the IDEXX IBD Ab/IBD-XR Ab Tests, please contact your IDEXX representative or visit idexx.com/ibd.

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Reference

1. Proceedings from: Summit on Infectious Bursal Disease; University of Georgia; 1995:29.

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