Infectious Bursal Disease (IBD) is an acute, highly contagious viral disease affecting young chickens. Clinical disease is exhibited by swollen (and sometimes hemorrhagic) bursae followed by bursal regression, immunosuppression and often mortality. IBD also can manifest as a subclinical disease where immunosuppression becomes apparent as the birds become more susceptible to other infectious agents.¹

The ProFLOK® IBD PLUS ELISA kit is a rapid and specific serologic test for the detection of IBD antibody in chicken serum samples. The kit was developed primarily to aid in the detection of pre- and post-vaccination IBD antibody levels in chickens. The ProFLOK IBD PLUS ELISA kit also is helpful in the development and evaluation of vaccination programs.

**Features and benefits**

- Highly specific for the detection of antibodies against IBD virus including classic and variant strains
- Detects IBD antibody response to IBD recombinant VP2 vectored vaccine
- Excellent correlation with IBD virus neutralization (VN) test
- Excellent well-to-well and plate-to-plate coefficient of variation (CV) demonstrating consistent reproducibility among batches over time
- USDA-licensed
- Long shelf life of 24 months for easy inventory management

**Kit performance**

**Specificity²**

In another study, monospecific sera made against variant and standard IBD viruses were obtained from the University of Delaware and The Ohio State University. Samples were tested with the ProFLOK IBD PLUS ELISA kit.

<table>
<thead>
<tr>
<th>Antiserum</th>
<th>Sample-to-Positive (SP) Value</th>
<th>Antibody Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana variant</td>
<td>1.15</td>
<td>Positive</td>
</tr>
<tr>
<td>MD variant</td>
<td>1.80</td>
<td>Positive</td>
</tr>
<tr>
<td>GLS variant</td>
<td>1.45</td>
<td>Positive</td>
</tr>
<tr>
<td>E/Del variant</td>
<td>1.60</td>
<td>Positive</td>
</tr>
<tr>
<td>Lukert</td>
<td>1.28</td>
<td>Positive</td>
</tr>
<tr>
<td>Edgar</td>
<td>1.74</td>
<td>Positive</td>
</tr>
</tbody>
</table>

**Detection of antibody response to an IBD-vectored vaccine²**

ProFLOK IBD PLUS ELISA was able to detect neutralizing antibodies to the VP2 antigen induced by a recombinant IBD virus vaccine.
Comparison with IBD VN

The decline in IBD maternal antibody titers measured by the ProFLOK IBD PLUS ELISA kits is similar to antibody titers measured by IBD VN, suggesting both tests detect a similar antibody to IBD virus.

Reproducibility

The reproducibility of the ProFLOK IBD PLUS ELISA kit was evaluated using five ProFLOK IBD PLUS ELISA plates, with each plate testing three IBD antibody titer levels (i.e., high, medium and low) of the positive control serum. Overall mean CV was 3.77%.

Interpreting results

The ProFLOK IBD PLUS ELISA antibody titer values obtained represent a comparison of the IBD antibody level within each field chicken serum tested and the ProFLOK IBD PLUS ELISA kit positive and normal control sera. Therefore, it is important to first determine that the ProFLOK IBD PLUS ELISA positive and normal control sera values obtained are valid, as detailed in the Assay Control Values section of the direction insert, before the ProFLOK IBD PLUS ELISA kit results are interpreted. The SP value threshold clearly separates positive samples from negative samples. A negative sample is one that is not significantly different from the normal control serum. The SP threshold for the ProFLOK IBD PLUS ELISA kit is as follows:

<table>
<thead>
<tr>
<th>SP VALUE</th>
<th>ProFLOK IBD PLUS ELISA ANTIBODY TITER RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.299 or less</td>
<td>0</td>
</tr>
<tr>
<td>0.300 and greater</td>
<td>1,002 and greater</td>
</tr>
</tbody>
</table>

Kit code and contents

U.S. code: 96-6500
Europe code: AUCIBD+450
Contents: 450 tests (five 96-well plates)

References:

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