Neospora caninum is a protozoal (Apicomplexan) parasite that can cause abortion and neonatal morbidity and mortality in cattle, sheep, goats and horses. Neosporosis has been reported as cause of abortion from countries all over the world.

IDEXX Neospora X2 Ab Test is an enzyme immunoassay for the detection of antibody to *N. caninum* in bovine serum. The assay can be used for epidemiological studies and for management decisions to attempt to reduce the prevalence of neosporosis in cattle herds.

- Detects *Neospora caninum* infection in the herd
- Indirect format (2 strip plates)
- Rapid testing method (<2 hours)
- Ready-to-use reagents
- Compatible with xChek* software

Serum samples from a dairy herd that was seropositive for *Neospora* (n=201) were obtained from U.S. cows. These samples were tested on the IDEXX Neospora X2 Ab Test, and also the immunofluorescent antibody (IFA) test.

<table>
<thead>
<tr>
<th></th>
<th>IFA</th>
<th>IDEXX ELISA</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>71</td>
<td>0</td>
<td>72</td>
</tr>
<tr>
<td>Negative</td>
<td>1</td>
<td>129</td>
<td>130</td>
</tr>
<tr>
<td>Totals</td>
<td>72</td>
<td>130</td>
<td>201</td>
</tr>
</tbody>
</table>

### IDEXX Neospora X2 Ab Test 95% Confidence Limits

<table>
<thead>
<tr>
<th></th>
<th>Low CL</th>
<th>High CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>100.0%</td>
<td>93.7</td>
</tr>
<tr>
<td>Specificity</td>
<td>99.2%</td>
<td>95.3</td>
</tr>
</tbody>
</table>

**Conclusion:** Results from the IDEXX Neospora X2 Ab Test correlated well with results from the IFA test. This data also shows excellent sensitivity for the IDEXX Neospora X2 Ab Test.
Life cycle of *Neospora caninum*

Ingestion of infected tissue (e.g., fetus, placenta) may cause dogs to shed *Neospora caninum* oocysts in their feces. These oocysts are very resistant and may survive up to weeks and/or months in the environment.

Newly infected cow
Cattle may become infected by ingesting *Neospora caninum* oocysts.

Infection during pregnancy
If these calves survive, they are considered to be chronically infected.

Chronically infected healthy calf
If these infected cattle are used for breeding purposes, vertical transmission of the infection from cow to calf may occur.

Breeding cow
In breeding herd operations, chronically infected pedigrees could result from this cycle.

Oocyst shedding

Abortion

Chronically N. caninum-infected cows exhibit an abortion rate two to three times higher than uninfected cows.

For more information about the **IDEXX Neospora X2 Ab Test**, please contact your IDEXX representative or visit [idexx.com/neo](http://idexx.com/neo).

References