

# ENZOOTIC BOVINE LEUKOSIS (EBL) ANTIBODY ELISA



## Outline

Enzootic Bovine Leukosis (EBL) is a transmissible disease caused by the Enzootic Bovine Leukosis Virus (EBL<sub>v</sub>). Infection with this virus causes leukaemia, lymphoma, and death in cattle. EBL is not generally considered highly contagious and the most common form of transmission is through artificial means of exposure such as blood-contaminated needles, and rectal gloves or probes. The appearance of clinical symptoms is rare; if they do appear it is often several years after the primary infection, and hence this disease is typically seen in animals over three years of age.

Infection with the virus is life-long in cattle and results in a persistent antibody response. As there is no treatment or vaccine currently available, effective control and prevention of EBL depends on early detection and elimination methods.

## TEST: EBL Antibody ELISA

This test detects antibodies produced in response to infection with the EBL virus.

**Sample Type:** Serum (red top tube), minimum volume 1ml. Samples can be tested individually or in pools. Pools contain a maximum of 10 animals per pool. Samples from a pool which produces a positive result would then be tested individually to identify the animal/s which are positive within that pool.

**Turnaround Time:** Usually 1-2 days after samples are received.

**Results:** The results for an EBL Antibody test are reported as positive, negative or non-specific.

## EBL ANTIBODY ELISA INTERPRETATION FOR A NON-SPECIFIC RESULT

The EBL test used at NZVP is a two well test, sample is added to one reference/control well and one "EBL specific" test well. A non-specific reaction occurs when both the reference and test well show a reaction. These reactions could mask the presence of an EBL Ab Positive animal. Although rare, non-specific reactions can be slightly more common at certain times of the year and their cause is unknown. Individuals in pools that produce non-specific reactions are tested individually to identify the sample/s causing the non-specific reaction. We recommend that all individual samples which produce a non-specific reaction be tested by EBL Gel Diffusion test. This test appears to eliminate the factor which causes the non-specific reaction with the ELISA test allowing a definitive result to be obtained. The turn-around time for EBL Ab GDT is approximately 3 days.

**Any questions regarding this test, contact the Serology Dept on our NZVP  
Freephone Number: 0800 838 522 ext 2**