



Setting a New Standard in the Diagnosis of Anaplasmosis

Anaplasma Antibody Test Kit, cELISA – USDA Licensed, Produced, Approved and Ready to Ship

Our new cELISA test kit for detection of antibodies against *Anaplasma* in bovine serum samples has become the new reference method. Along with the full convenience of ELISA technique, this test brings a four-fold increase of sensitivity compared to the former standard.

Anaplasmosis is non-contagious, arthropod-borne parasitic disease of ruminants that results in significant economic losses to the cattle industry. The disease in cattle is caused by *Anaplasma marginale*, recently classified in geno-group II of Ehrlichia. *Anaplasma marginale* is an intra-erythrocytic parasite that causes severe anemia, abortion, weight loss, jaundice and death. Diagnosis of the acute disease is based upon clinical signs, anemia and finding of *Anaplasma* inclusion bodies in erythrocytes. Animals surviving the acute phase become lifelong carriers. Ticks transmit the infection from carriers to naive cattle, which develop clinical disease. Cycles of rickettsemia in carriers fluctuate between $10^{2.5}$ and 10^7 infected erythrocytes per ml, levels generally undetectable by Giemsa staining. Carriers can be identified by detection of serum antibodies to *A. marginale*.



This *Anaplasma* Antibody Test Kit, cELISA is a competitive enzyme-linked immunosorbent assay (cELISA) for the detection of antibodies specific for *Anaplasma* in bovine serum samples.

It is intended to provide results which will give guidance about the presence of *Anaplasma* infection in cattle.

The principle of the test is as follows: Sample serum antibodies to *Anaplasma* inhibit the binding of a horseradish peroxidase (HRP)-labeled monoclonal antibody to *Anaplasma* antigen coated on the plastic wells. Binding, or lack of binding, of the HRP-labeled monoclonal antibody conjugate is detected by the addition of enzyme substrate and quantified by subsequent color product development. Strong color development indicates little or no blockage of HRP-labeled monoclonal antibody binding and therefore,

Anaplasma cELISA Benefits:

- High sensitivity
- Great reliability of results
- Simple protocol
- Accuracy in detection of carrier animals
- OIE recommended test



the absence of antibodies to *Anaplasma* in the sample serum. Weak or no color development due to inhibition of the monoclonal antibody binding to the antigen on the solid phase indicates the presence of *Anaplasma* antibodies in the sample serum.

Diagnostic value of VMRD cELISA test compared to nPCR as a gold standard

		nPCR		
		+	-	Sum
VMRD cELISA	+	91	1	92
	-	5	40	45
Sum		96	42	137

Sensitivity: 94.8% • Specificity: 97.6%

Compare this to 20% sensitivity of complement fixation test on the same set of samples. More information is available in: Bradway *et al.* *Sensitivity and specificity of the complement fixation test for detection of cattle persistently infected with Anaplasma marginale.* J Vet Diagn Invest 2001 Jan;13(1):79-81.

ORDERING INFORMATION

Product name	Cat #	Size	List Price
Anaplasma cELISA	282-2	2 plates	\$300.00
Anaplasma cELISA	282-5	5 plates	\$650.00

www.vmrld.com