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Bluetongue Virus Antibody Test Kit, cELISA

VMRD's competitive enzyme-linked immunosorbent assay (cELISA) detects antibody to bluetongue virus in ruminant sera. It has been demonstrated to detect all 24 known serotypes of Bluetongue Virus (BTV) and not to detect antibody to serotypes 1 or 2 of Epizootic Hemorrhagic Disease Virus (EHDV). The kit has demonstrated excellent sensitivity and specificity in comparison with various benchmarks in various studies. The economics of this competitively-priced assay are further enhanced by savings in technician time since sample dilution is unnecessary and incubation times total only 40 minutes. Another economic advantage of this test kit is its USDA-approved 18-month shelf life—also a testimony to the stability of the kit. VMRD has manufactured over 40,000 BTV cELISA plates—nearly four million test wells—which were used extensively during the recent Bluetongue outbreak in Europe.



		Reference cELISA		
		+	-	Sum
VMRD BTV cELISA	+	106	5	111
	-	0	348	348
Sum		106	353	459
Sensitivity: 100% • Specificity: 99% [§]				

Independent field trial data and DVL referee of discordants, January 1995.

About Bluetongue Virus

Bluetongue is an infectious, non-contagious, arthropod-borne viral disease of wild and domestic ruminants. In cattle it is usually a subclinical infection, while in sheep it is often characterized by acute catarrhal inflammation of mucous membranes and hyperemia of coronary bands. Degenerative changes are present in skeletal and coronary musculature, which lead to weakness, prolonged convalescence and significant economic losses.

Bluetongue Virus (BTV) belongs to the genus Orbivirus, family Reoviridae. Laboratory diagnosis of bluetongue is primarily established by isolation of the virus. Virus is isolated in Veros or BHK 21 cells, and its presence is confirmed by immunofluorescence. Serological methods used in diagnosis of this disease are AGID, ELISA, cELISA and immunofluorescence. Positive results confirm exposure to BTV but not necessarily carrier status.

Overview of the Bluetongue cELISA Kit Procedure

- 1** Place 25 µl of samples and controls into wells of Antigen Plate
- 2** Incubate 15 minutes at room temperature
- 3** Add 25 µl of of Conjugate to all wells
- 4** Incubate Conjugate 15 minutes
- 5** Wash all wells three times with Wash Solution
- 6** Add 50 µl of Substrate Solution to all wells
- 7** Incubate 10 minutes at room temperature
- 8** Add 50 µl of Stop Solution to all wells
- 9** Read at 620-650 nm

Samples are positive if they produce an optical density less than 50% of the mean of the Negative Controls.

Samples are negative if they produce an optical density greater than or equal to 50% of the mean of the Negative Controls.

For test validation, the mean optical density of the Negative Controls must be greater than 0.300 and less than 2.000. The mean optical density of the Positive Controls must be less than or equal to 50% of the mean optical density of the Negative Controls.

Bluetongue Virus Antibody Test Kit, cELISA

Format	Species	Sample	Sensitivity	Specificity	Run Time
cELISA	ruminants	serum	100%	99%	50 minutes

USDA Licensed Product

Catalog No.	Configuration	Tests
287-2	2 stripwell plates	184
287-5	5 solid plates	460