



BoHV-1 SEROCONVERSION ELISA KIT

For serum or milk (Bovine) - Double wells -
BIO K 238/2

Infectious bovine rhinotracheitis (IBR) is an infectious disease caused by a herpesvirus, BoHV-1. The syndrome usually includes fever and eye and nasal discharges. The disease may be accompanied by encephalitis and abortion. The causal virus is identical to the virus that causes infectious pustulo-vaginitis in cattle. It is usually rather easy to make the clinical diagnosis of the disease. Serodiagnosis makes sense only if a sharp increase in the titre in paired serum samples is seen. Prevention may be based on vaccination or elimination of the seropositive animals.

Use of the kit

The kit is designed to follow seroconversion on paired sera or milks.

Reliable Results

The use of purified BoHV1 virus produces excellent specificity and very reliable results.

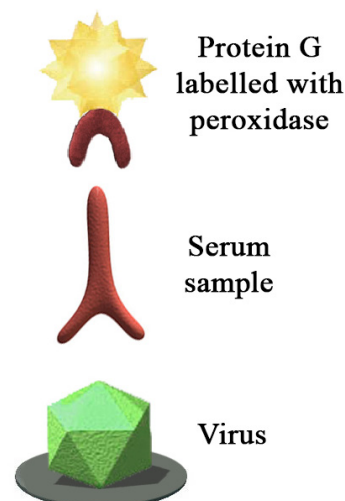
Protein G used as conjugate recognise most of immunoglobulins isotypes.

Ease-of-Use

Minimal hands-on-time
Room temperature incubation
Results available in 140 minutes for single or batch testing.

EIA Procedure

- 1- Purified and inactivated virus is coated on micro-plate
- 2- Add samples, positive and negative controls.
Incubate 1 hour at 21°C+/-3°C.
Wash
- 3- Add conjugate.
Incubate 1 hour at 21°C+/-3°C.
Wash
- 4- Add monocomponent TMB
Wait 10 minutes
Add stop solution. Read at 450 nm





Kit performance

The performance of the BIO K 238 kit was compared with that of a seroneutralization test on 16 blood serum samples.

The results are shown in graph 1.

Graph n° 1

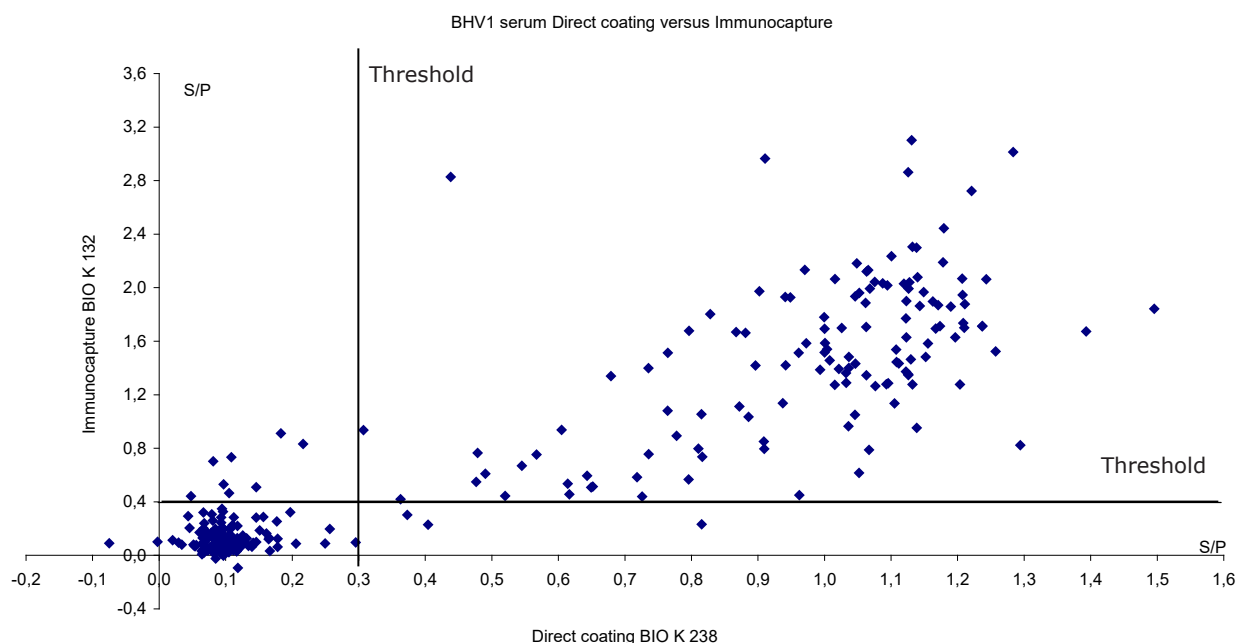
N° serum	OD positive well	OD négative well	Delta OD	Seroneutralization
1	0,556	0,211	0,345	6
2	0,438	0,226	0,212	4
3	0,393	0,196	0,197	< 2
4	0,191	0,068	0,123	2
5	0,369	0,102	0,267	4
6	0,229	0,074	0,155	2
7	0,907	0,245	0,662	51
11	1,188	0,487	0,701	20
14	0,693	0,245	0,448	3
17	2,646	0,159	2,487	256
18	3,093	0,206	2,887	> 256
19	3,261	0,165	3,096	> 256
20	2,703	0,108	2,595	256
23	2,725	0,115	2,610	161
31	0,230	0,140	0,090	< 2
32	0,319	0,192	0,127	< 2





Kit performance

The performance of the BIO K 238 kit using purified virus was compared with that of an monoclonal immunocapture ELISA test (BIO K 132) on 270 blood serum samples. The results of these comparisons are shown in Graph 2. 1 corresponds to the value obtained with the kit's positive reference serum (S/P).



BIO K 132

BIO K 238		-	+	
	-	130	8	138
	+	4	128	132
		134	136	270

Concordance between the two tests: Kappa = 0.91

The concordance between the two tests is considered excellent.

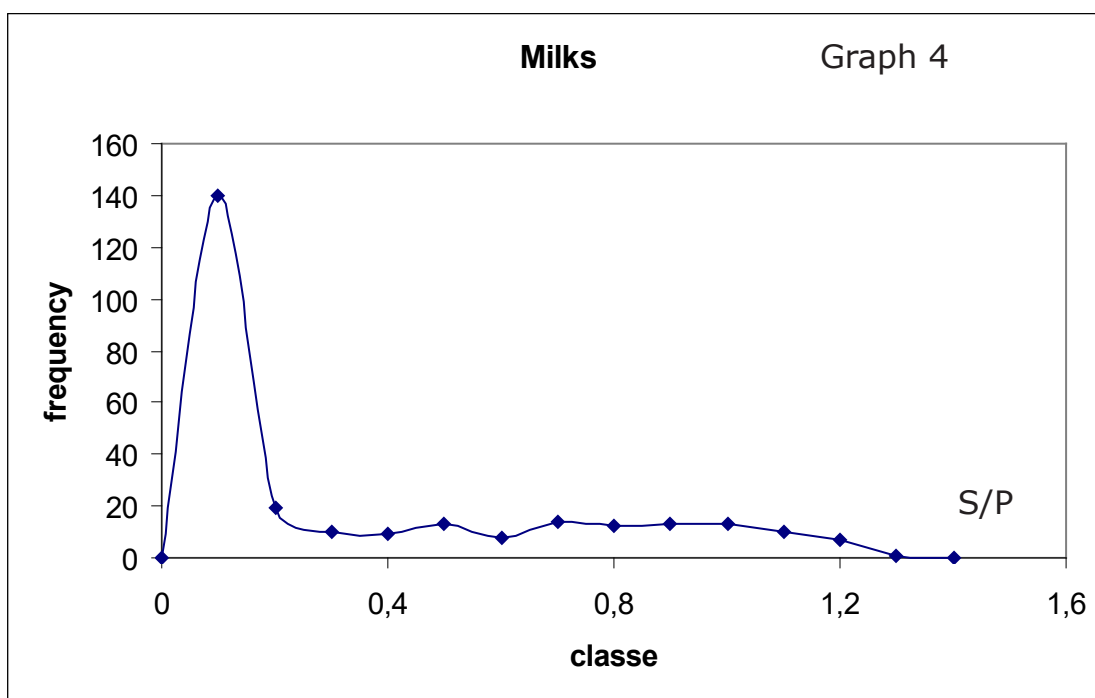
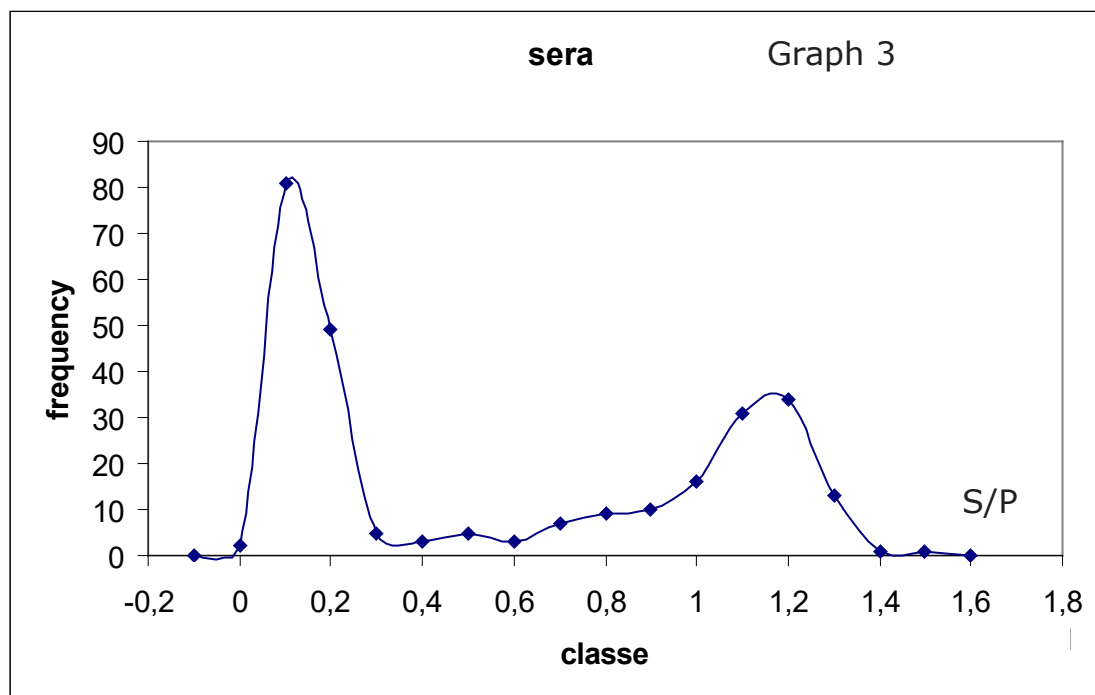
Landis et Koch, The measurement of observer agreement for categorical data

Biometrics 1977, 33, 159-74



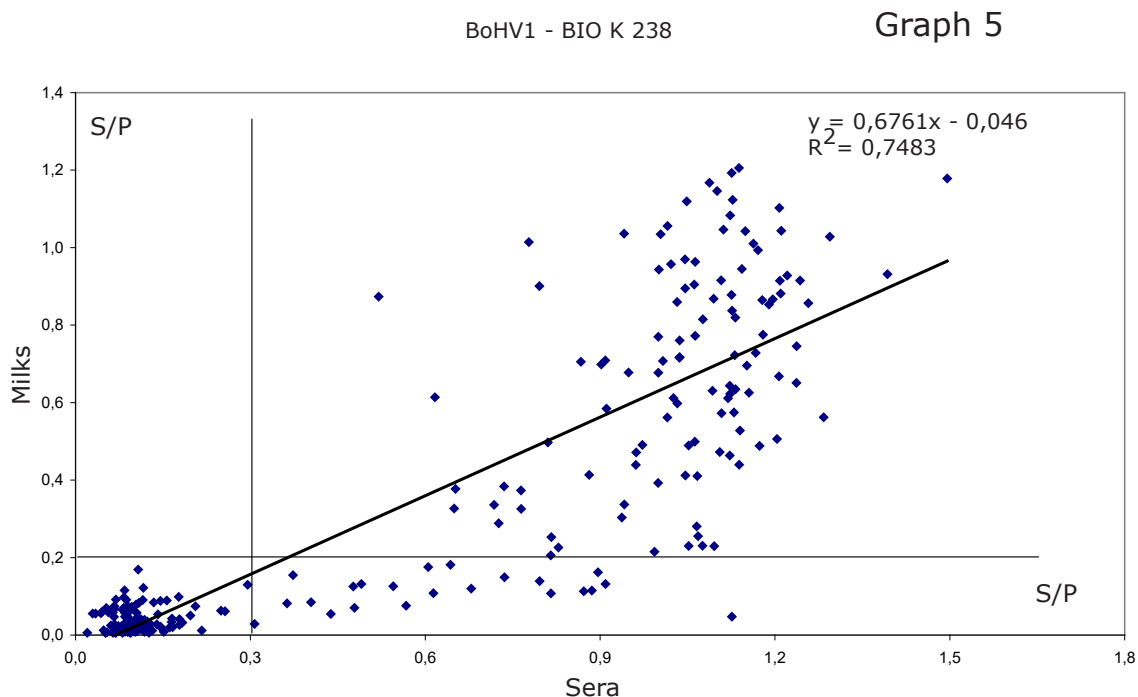


270 serum and 270 milk samples taken from the same animals were tested using the BIO K 238 kit. These samples came from twenty-seven Belgian farms. Their optical density readings were divided by the optimal density reading for the kit's reference serum (S/P). Frequency histograms were then plotted for the blood sera (Graph 3) and milk samples (Graph 4).





The frequency histograms generated for the 270 milk and 270 blood serum samples reveal that the thresholds must be set preferentially at 30% of the kit's reference serum's signal for sera and 20 % for milk. Graph 5 shows the correlation between the serological findings yielded by the blood sera and those yielded by the milk samples.



Milks

	-	+	
-	137	0	137
+	22	110	132
	159	110	270

Sera

Concordance between the two tests: Kappa = 0.84

The concordance between the two tests is considered excellent.

Landis et Koch, The measurement of observer agreement for categorical data
Biometrics 1977, 33, 159-74

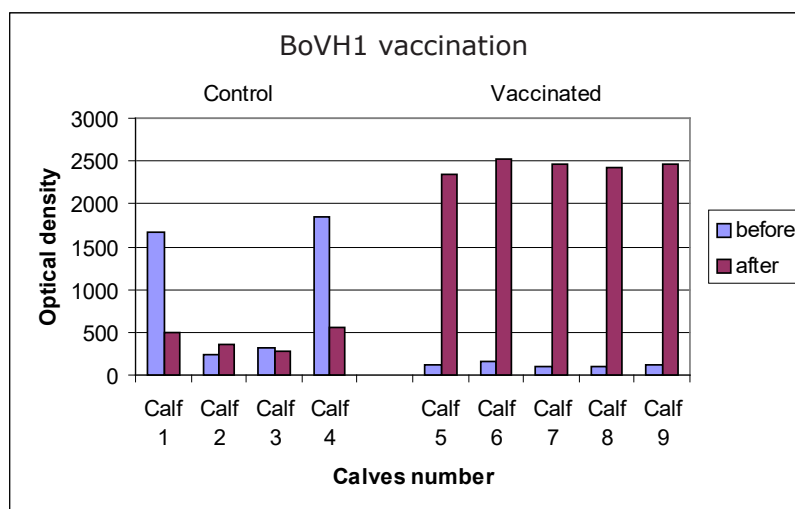




Example of results

Graph n° 6

A batch of 9 calves of approximately 5 months was divided into two groups. The first group (n = 4) was not vaccinated. The second group (n = 5) was vaccinated with an inactivated commercial vaccine. Before vaccination, the 9 calves were blood sampled. After the second vaccination, the 9 calves underwent a blood sampling. The paired sera were tested with the Bio K 238 kit of Bio-X Diagnostics.



Composition of the kit

BoHV1 TEST ELISA KIT	BIO K 238/2
Microplates	2 (96 tests)
Washing solution	1 X 100 ml (20 X)
Dilution buffer	1 X 30 ml (5 X)
Conjugate	1 X 0.5 ml (50 X)
Positive serum	1 X 0.5 ml (1 X)
Negative serum	1 X 0.5 ml (1 X)
TMB monocomponent	1 X 25 ml (1 X)
Stop solution	1 X 15 ml (1 X)

Stability : One year between +2°C et +8°C

