EXTERNAL REFERENCES

ID SCREEN® BLV COMPETITION

Last update: July 2025

Publications / References:

PERFORMANCE EVALUATION

1)Milićević V. *et al.* (2025). **Performance of 5 commercial ELISA kits for the detection of antibody to bovine leukemia virus**. Journal of Veterinary Diagnostic Investigation, 37(1), 145-147.	• 5 commercial ELISA kits, including the ID Screen® BLV Competition and Indical, GSD, VMRD, Idexx BLV ELISA tests, were evaluated using cattle sera (138 positive and 100 negative).
	
	• *Results*:
	--100% agreement between the ID Screen® BLV Competition, Indical, and GSD ELISAs
	--93% agreement comparing these 3 kits to VMRD test-
	- 92% agreement comparing these 3 kits to Idexx test
	--the ID Screen® BLV Competition shows:
	   • specificity: 99.1%
	   • sensitivity: 100%
	   • positive predictive value: 0.86
	   • negative predictive value: 1.
		Comparison with competitors

2)Kuczewski A. *et al.* (2018). **Evaluation of 5 different ELISA for the detection of bovine leukemia virus antibodies**. Journal of Dairy Science, 101(3), 2433-2437.	• 5 commercial ELISA kits, including the ID Screen® BLV Competition and Biovet, Idexx, Indical, and Zoetis BLV ELISA tests, were evaluated using cattle sera (108 positive and 112 negative, qualified previously by Prairie Diagnostics Services, Canada). In addition, field serum samples from BLV antibody-positive cows (n = 54), as well as serum samples from BLV antibody-negative cows (n = 62) were tested. • *Results*: -high agreement between assays (almost perfect to perfect), suggesting very similar performances -diagnostic sensitivity of all tests was 100%	Comparison with competitors

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		Correlation with other techniques				Specificity data
	-diagnostic specificity was 95% for the ID Screen® BLV Competition. *When considering other test characteristics, the ID Screen® BLV Competition is exceptional due to considerable practical advantages:* **i**t*s short turn around time, its ability to test entirely at room temperature, and ease of handling. (*sic)					

EPIDEMIOLOGICAL STUDIES

		Correlation with other techniques				Specificity data
3)Babaoglu A.R. *et al.* (2024). **Seroprevalence of bovine leukemia virus in cattle and buffaloes in the border provinces of the Eastern Anatolia region, Türkiye: insights into the eradication of infection**. Veterinary Research Forum , Vol. 15, No. 11, p. 599.	• serum samples from 982 cattle and 51 **buffaloes** were tested using the ID Screen® BLV Competition and the IDvet BLV AGID. • *Results*: no antibodies against BLV infection were detected, neither with AGID nor with ELISA tests.					
4)Metwally S. *et al.* (2023). **Seroprevalence and Risk Factors Assessment of Bovine Leukemia Virus in Cattle in Beheira, Egypt**. Journal of Advanced Veterinary Research, 13(5), 837-842.	• 368 cattle plasma samples (219 dairy cows and 149 beef cows) were tested using the ID Screen® BLV Competition. • *Results*: seroprevalence was -in dairy cattle: 14.2% -in beef cattle: 8.7%.					
5)Pichardo-Matamoros D. *et al.* (2023). **Exploration of semen quality analyzed by casa-mot systems of brahman bulls infected with BLV and BHV-1**. Scientific Reports, 13(1), 18659.	• to explore the influence of BLV on bull semen quality, BLV status was evaluated in 10 bulls using the ID Screen® BLV Competition. • *Results*: 2 bulls were positive, without impact on semen quality.					
6)Rahman A. *et al.* (2023). **Seroprevalence and haemato-biochemical effects of bovine leucosis in buffalo, Punjab, Pakistan**. Veterinární medicína, 68(10), 385.	• 384 **buffalo** sera were tested using the ID Screen® BLV Competition. • *Results*: seroprevalence was 18.2%.					
7)Sökmen A. *et al.* (2023). **Seroprevalence of Bovine Leukemia Virus Infection in Cattle in Muş Province, Türkiye**. Turkish Journal of Agriculture-Food Science and Technology, 11(10), 1878-1881.	• 300 cattle sera were tested using the ID Screen® BLV Competition and the IDvet BLV AGID. • *Results*: no antibodies against BLV infection were detected in AGID and ELISA tests.					

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8)Ullah H. *et al*. (2023). **Serological and haemato-biochemical insights into bovine leukosis in dairy cattle in D.I. Khan, Pakistan**. South African Journal of Animal Science, 53(1), 38-45.	• 192 cattle sera were tested using the ID Screen® BLV Competition. • *Results*: seroprevalence was 31.3%.					
9)Esmailnejad A. *et al.* (2020). **Molecular and Serological Evaluation of Bovine Leukemia Virus in Water Buffaloes of Southern Iran**. Iranian Journal of Veterinary Medicine, 14(1).	• 100 **buffalo** sera were tested using the ID Screen® BLV Competition. • *Results*: seroprevalence was 52%.					

EXPERIMENTAL STUDIES

10)Feliziani F. *et al.* (2017). **Bovine leukemia virus: Experimental infection in buffaloes and evaluation of diagnostic test reliability**. Research in Veterinary Science, 114, 450-454.	• Experimental infection was performed, using whole blood derived from BLV-infected cows, on a panel of 21 animals (including male and pregnant female **buffaloes** and sheep). The serological response was assessed using the ID Screen® BLV Competition and two other commercial BLV ELISA tests. • *Results*: the ID Screen® BLV Competition revealed seroconversion in ewes at 15 and 21 days post-infection; seroconversion was detected in 5 buffaloes with different latency periods for each of these animals (from 60 to 310 days post-infection). **The study concludes that buffaloes are susceptible to experimental BLV infection, although the sensitivity of this species is lower than that of other cattle and sheep, with no consistent results obtained from the ELISAs.**					

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