

EXTERNAL REFERENCES

ID SCREEN® RIFT VALLEY FEVER COMPETITION MULTI-SPECIES

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Publications / References:

CATTLE

<p>1) Hassan-Kadle A. <i>et al.</i> (2021). Rift Valley fever and Brucella spp. in ruminants, Somalia. BMC Veterinary Research, 17(1), 1-6.</p>	<ul style="list-style-type: none"> • Serum samples from 609 ruminants (201 cattle, 203 goats, and 205 sheep), were serologically screened using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> 2 cattle sera tested positive (prevalence 1%). 			Epidemiological study		
<p>2) Métras R. <i>et al.</i> (2020). Estimation of Rift Valley fever virus spillover to humans during the Mayotte 2018-2019 epidemic. Proceedings of the National Academy of Sciences, 117(39), 24567-24574.</p>	<ul style="list-style-type: none"> • Seroepidemiological study in cattle (n= 1169) with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, related to human cases (RITFV-positive by RT-PCR). • <i>Results:</i> Both livestock and human surveillance data were used to parameterize a mathematical model. 			Epidemiological study		
<p>3) Halawi A.A.D. <i>et al.</i> (2019). Seroprevalence of Rift Valley fever in cattle of smallholder farmers in Kwilu Province in the Democratic Republic of Congo. Tropical animal health and production, 51, 2619-2627.</p>	<ul style="list-style-type: none"> • 677 cattle sera were tested for anti-RVFP antibodies using immunofluorescent assay (IFA). Therefore, all IFA positive and intermediate and some negative sera were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> None of the IFA-negative samples tested positive on ELISA. Out of a total of 677 cattle examined for antibodies against RVF, 38 animals (5.6%) were found positive for both IFA and ELISA. Of the seven samples with intermediate IFA results, six were confirmed positive on ELISA while five IFA-positive samples were ruled out negative on ELISA. Thus, the overall RVF seroprevalence was estimated to be 6.5% (44/677). <p>It was interesting to note that most intermediate IFA results were confirmed by ELISA although a few IFA-positive samples were ruled out by ELISA.</p>	Correlation with other techniques		Epidemiological study		

<p>4)Tshilenge G. <i>et al.</i> (2019). Seroprevalence of Rift Valley fever virus in cattle in the Democratic Republic of the Congo. Tropical animal health and production, 51, 537-543.</p>	<ul style="list-style-type: none"> • 1675 sera samples were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE to detect both IgG and IgM. RT-PCR was used for the detection of nucleic acid of RVFV. • <i>Results:</i> Out of the 1675 cattle sera tested, 203 were IgG-positive, giving an overall true seroprevalence of 12.37%. Among the IgG-positive samples screened for anti-RVFV IgM, only 1.47% (3/203) were IgM-positive. One of the IgM-positive samples was positive by RT-PCR. 			Epidemiological study	
<p>5)Alhaji N.B. <i>et al.</i> (2018). Participatory survey of Rift Valley fever in nomadic pastoral communities of North-central Nigeria: The associated risk pathways and factors. PLoS Negl Trop Dis 12(10): e0006858.</p>	<ul style="list-style-type: none"> • 97 cattle sera were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> seroprevalence of 11.3%. 			Epidemiological study	
<p>6)Bazanow B.A. <i>et al.</i> (2018). Preliminary serological investigation of Rift Valley fever in Poland. Journal of Vector Borne Diseases, 55(4), 324-326.</p>	<ul style="list-style-type: none"> • 973 banked bovine sera were screened using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES in an RVFV-free area. • <i>Results:</i> All sera tested negative. <p>the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES shows 100% specificity.</p>				Specificity data
<p>7)Matiko M.K. <i>et al.</i> (2018). Serological evidence of inter-epizootic/interepidemic circulation of Rift Valley fever virus in domestic cattle in Kyela and Morogoro, Tanzania. PLoS Negl Trop Dis 12(11): e0006931.</p>	<ul style="list-style-type: none"> • 356 sera samples from the local breed of zebu cattle (<i>Bos indicus</i>) and <i>Bos indicus/Bos taurus</i> crossbreed were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. A PRNT (Plaque Reduction Neutralizing Test) assay was performed in all competition ELISA-positive samples. • <i>Results:</i> seroprevalence by the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES was 29.2% (104/356). In total, 8.4% of all cattle had RVFV IgM antibodies. When the 104 competition ELISA-positive samples were analyzed by PRNT, 89% (93/104) had RVFV-neutralizing antibodies. 	Correlation with other techniques		Epidemiological study	
<p>8)Tshilenge G. <i>et al.</i> (2018). Seroprevalence and virus activity of Rift Valley fever in cattle in eastern region of Democratic Republic of the Congo. Journal of veterinary medicine, ID 4956378.</p>	<ul style="list-style-type: none"> • 450 cattle sera were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. All the anti-RVF IgM samples were tested using RT-PCR. • <i>Results:</i> anti-RVF IgG prevalence was 6.22%, anti-RVF IgM prevalence was 1.8% and none of the positive anti-RVF IgM samples (n=8) was positive for viral RVFV RNA. 			Epidemiological study	

<p>9)Fèvre M. <i>et al.</i> (2017). An integrated study of human and animal infectious disease in the Lake Victoria crescent small-holder crop-livestock production system, Kenya. BMC Infectious Diseases, Volume 17, Number 1, Page 1.</p>	<ul style="list-style-type: none"> • 983 cattle samples were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> Prevalence RVFV 1,4%. 			Epidemiological study		
<p>10)Umuhoza T. <i>et al.</i> (2017). Seroprevalence of Rift Valley fever in cattle along the Akagera–Nyabarongo rivers, Rwanda. Journal of the South African Veterinary Association 88, a1379.</p>	<ul style="list-style-type: none"> • Cross-sectional study to generate baseline information on RVFV in cattle (n=595) with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> Seroprevalence: 7,9%-36,9% 			Epidemiological study		
<p>11)Bagninbom J.M. (2016). Séroprévalence et facteurs de risque de la fièvre de la vallée du rift chez les bovins dans les hautes terres du Cameroun. caphavet.com/index.php/projets-2/memoires-et-theses/item/77-these-Dr-Bagninbom-Jean-Marc-Esmv-Ngaoundere-Cameroun.</p>	<ul style="list-style-type: none"> • Serostudy on 1498 bovine with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> Seroprevalence: 6,93%-8,69%. 			Epidemiological study		
<p>12)Nicolas G. <i>et al.</i> (2014). A 3-year serological and virological cattle follow-up in Madagascar highlands suggests a non-classical transmission route of Rift Valley fever virus. Am J Trop Med Hyg. 2014;90(2):265-6.</p>	<ul style="list-style-type: none"> • A 3-year serological and virological cattle (n=1353) follow-up using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, the ID Screen RIFT VALLEY FEVER IGM CAPTURE, and PCR. • <i>Results:</i> no IgM found, but RVFV confirmed by PCR. Seroconversion was observed with all the IgG-positive samples found using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES being confirmed by VNT). 	Correlation with other techniques		Epidemiological study		

SHEEP AND GOATS

<p>13)Ebogo-Belobo J.T. <i>et al.</i> (2022). Serological evidence of the circulation of the Rift Valley fever virus in sheep and goats slaughtered in Yaoundé, Cameroon. Veterinary Medicine and Science, 8(5), 2114-2118.</p>	<ul style="list-style-type: none"> • Blood samples from 47 sheep and 144 goats were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. • <i>Results:</i> overall seroprevalence was 5.2% (10/191) for anti-RVFV IgG antibodies and 0.0% (0/191) for IgM antibodies. The seroprevalence for anti-RVFV IgG antibodies was 6.4% (3/47) in sheep and 4.9% (7/144) in goats. 			Epidemiological study		
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<p>14)Cichon N. <i>et al.</i> (2021). Co-circulation of Orthobunyaviruses and Rift Valley Fever Virus in Mauritania, 2015. <i>Front. Microbiol.</i> 12:766977.</p>	<ul style="list-style-type: none"> • 458 serum samples from sheep and goats were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, followed by SNT (seroneutralisation). Samples with positive and inconclusive results in the ELISA were further tested with the ID Screen RIFT VALLEY FEVER IGM CAPTURE In case of divergent results in the ELISA and SNT, a final assessment was performed with IFA. A parallel analysis was performed on 3 Orthobunyaviruses: NRIV, BUNV, and BATV. • <i>Results:</i> the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES revealed 84 antibody-positive samples. 81/84 sera were confirmed seropositive using SNT, indicating a prevalence of 17.69%, and 22 samples revealed RVFV IgM antibodies (prevalence of 4.80%). Of the 81 specimens, 61 samples revealed antibodies against RVFV and at least against one of the three orthobunyaviruses. 	<p>Correlation with other techniques</p>		<p>Epidemiological study</p>		
<p>15)Fakour S. <i>et al.</i> (2021). A serological and hematological study on Rift Valley fever and associated risk factors in aborted sheep at Kurdistan province in west of Iran. <i>Comparative Immunology, Microbiology and Infectious Diseases</i>, 75, 101620.</p>	<ul style="list-style-type: none"> • 182 blood samples collected from aborted sheep were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. IFA was used to confirm positive samples. • <i>Results:</i> 3/182 sera were positive in both tests (prevalence 1.65%). <p>The results of IFA were correlated with ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES results.</p>	<p>Correlation with other techniques</p>		<p>Epidemiological study</p>		
<p>16)Alhaj M.S. <i>et al.</i> (2019). The circulation of Rift Valley fever virus in sentinel animals in Saudi Arabia: a reterospective cohort study. <i>Basrah Journal of Veterinary Research</i>, 18(2), 80-92.</p>	<ul style="list-style-type: none"> • Sera from 330 sentinel animals (sheep and goats) were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> 36/330 sera tested positive (prevalence 10.09%%); 16 (44%) were goats and 20 (55.6%) were sheep. 			<p>Epidemiological study</p>		
<p>17)Poueme R. <i>et al.</i> (2019). Seroprevalence and associated risk factors of Rift Valley fever in domestic small ruminants in the north region of Cameroon. <i>Veterinary medicine international.</i></p>	<ul style="list-style-type: none"> • Sera from 355 goats and 325 sheep were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. • <i>Results:</i> 23/680 (3.4%) individual animals were anti-RVFV antibody seropositive while 16/65 herds (24.6%); had at least one seropositive animal. No difference in RVFV antibody seropositivity between sheep and goats at an individual animal level and herd level was observed respectively; the ID Screen RIFT VALLEY FEVER IGM CAPTURE did not reveal RVFV-IgM antibodies in animals that tested positive in the competition ELISA before. 			<p>Epidemiological study</p>		

<p>18)Tshilenge G.M. <i>et al.</i> (2019). Rift Valley fever virus in small ruminants in the Democratic Republic of the Congo. Onderstepoort Journal of Veterinary Research 86(1), a1737.</p>	<ul style="list-style-type: none"> • 893 sera from sheep and goats were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. RT-PCR was also used to detect RVFV nucleic acid. • <i>Results:</i> There were significant variations in true seroprevalence of RVFV for both sheep and goats between the provinces investigated. Values ranged from 0.0% to 23.81% for goats and 0.0% to 37.11% for sheep, respectively. One serum (1.85%) out of 54 that tested positive for IgG was found to be IgM-positive. This same sample was also positive by RT-PCR indicating an active or recent infection. 			Epidemiological study	
<p>19)Mbotha D. <i>et al.</i> (2018). Inter-epidemic Rift Valley fever virus seroconversions in an irrigation scheme in Bura, south-east Kenya. Transboundary and Emerging diseases, 65(1), e55-e62.</p>	<ul style="list-style-type: none"> • Seroconversion study: 360 sera from 228 goats and 88 sheep were sampled during 6 visits and analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. 			Epidemiological study	
<p>20)Makoschey B. <i>et al.</i> (2016). Rift Valley Fever Vaccine Virus Clone 13 Is Able to Cross the Ovine Placental Barrier Associated with Foetal Infections, Malformations, and Stillbirths. PLoS Negl Trop Dis 10(3): e0004550.</p>	<ul style="list-style-type: none"> • RVF vaccine virus clone 13 was tested in young lambs and pregnant ewes; the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES was used to follow antibody response. • <i>Results:</i> Clone 13 virus induced RVFV antibody response in pregnant ewes two weeks post-inoculation and several pre-colostrum serum samples tested positive for RVFV-specific antibodies. 			Vaccination monitoring	
<p>21)Blomström A-L. <i>et al.</i> (2016). Seroprevalence of Rift Valley fever virus in sheep and goats in Zambezia, Mozambique. Infection Ecology & Epidemiology.;6:10.3402/iee.v6.31343.</p>	<ul style="list-style-type: none"> • Seroprevalence study in small ruminants (n=368) using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> 44,2% prevalence in sheep and 25% in goats, respectively. 			Epidemiological study	
<p>22)Wachtmeister N. (2015). A Serological Study of Rift Valley Fever Virus in Two Regions of Tanzania. Degree project in veterinary medicine, stud.epsilon.slu.se.</p>	<ul style="list-style-type: none"> • Serological study on 242 goats and 236 sheep among 39 herds using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> herd prevalence varied between the different herds (0 to 55%). 			Epidemiological study	

LARGE AND SMALL RUMINANTS

<p>23)Kainga H. <i>et al.</i> (2022). Seroprevalence and Associated Risk Factors of Rift Valley Fever in Livestock from Three Ecological Zones of Malawi. Pathogens, 11, 1349.</p>	<ul style="list-style-type: none"> A total of 1523 serum samples from cattle, sheep, and goats were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. <i>Results:</i> The overall seroprevalence was 17.14% (261/1523) for individual livestock and 33.24% (120/361) for the livestock herds. Seroprevalence was 25.68% in sheep, 21.35% in cattle, and 7.72% in goats. The detection of IgM antibodies confirmed active circulation of RVFV. 			Epidemiological study	
<p>24)Sado F.Y. <i>et al.</i> (2022). Seroprevalence of Rift Valley fever virus in domestic ruminants of various origins in two markets of Yaounde, Cameroon. PLoS Negl Trop Dis 16(8): e0010683.</p>	<ul style="list-style-type: none"> 756 plasma samples from 441 cattle, 168 goats, and 147 sheep were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. Following ELISA IgM results, RT-PCR was performed to detect RVFV RNA. <i>Results:</i> RVFV IgG seroprevalence was 25.7% for all animals, 42.2% in cattle, 2.7% in sheep, and 2.4% in goats. IgM seroprevalence was low, at 0.9% in all animals, 1.1% in cattle, 1.4% in sheep, and 0% in goats. 3 (42.9%) IgM-positive samples were positive for viral RVFV RNA. 	Correlation with other techniques		Epidemiological study	
<p>25)Wanjama J. <i>et al.</i> (2022). Sero-Epidemiological Survey of Rift Valley Fever Virus in Ruminants in Nyandarua County, Kenya. East African Agricultural and Forestry Journal, 86(1-2), 11-11.</p>	<ul style="list-style-type: none"> 301 RVF suspect animals (164 cattle, 118 sheep, and 19 goats) were sampled. The RVFV IgG and IgM antibodies were detected using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. respectively. <i>Results:</i> The overall IgG seroprevalence was 31.23%. Cattle, sheep, and goats had a seroprevalence of 49.39% (81/164) 9.32% (11/118), and 10.53% (2/19) respectively. 94 IgG-positive sera samples were screened for IgM, and 3 cattle were found seropositive (prevalence 3.19%). 			Epidemiological study	
<p>26)Sindato C. <i>et al.</i> (2021). Safety, Immunogenicity and Antibody Persistence of Rift Valley Fever Virus Clone 13 Vaccine in Sheep, Goats and Cattle in Tanzania. Front. Vet. Sci. 8:779858.</p>	<ul style="list-style-type: none"> A vaccine trial using RVFV Clone 13 vaccine was conducted on 230 sheep, 230 goats, and 140 cattle. Animals were bled before vaccination and at days 15, 30, 60, 180, and 360 (+/- 10) post-vaccination to measure IgM and IgG antibody responses to RVFV using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. <i>Results:</i> By day 15 post-inoculation, the IgG seroconversion in vaccinated goats, cattle, and sheep was 27.0%, 20.0%, and 10.4%, respectively. By day 30 post-inoculation, it was 75.0%, 74.1%, and 57.1% in vaccinated sheep, goats, and cattle, respectively. By day 60 post-inoculation, IgG seroconversion in sheep, goats, 			Vaccination monitoring	

	<p>and cattle was 88.1%, 84.3%, and 64.60%, respectively. By day 180, the IgG seroconversion in sheep, goats, and cattle was 88.0%, 83.8%, and 66.1%, respectively. By day 360, the IgG seroconversion in sheep, goats, and cattle was 87.2%, 85.6%, and 66.1%, respectively. Only five animals from the vaccinated group were RVFV IgM positive, which included four sheep and a goat.</p>				
<p>27) Wekesa F.C. <i>et al.</i> (2021). Serological evidence of inter-epidemic circulation of Rift Valley fever virus in livestock in Kenya. East African Agricultural and Forestry Journal, 85(3 & 4), 13-13.</p>	<ul style="list-style-type: none"> 615 sera collected from Ovine, Caprine, and Bovine were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, the ID Screen RIFT VALLEY FEVER IGM CAPTURE and Serum Virus Neutralization Test (SVNT). Samples that were competition-ELISA positive and capture IgM-ELISA negative were presumed to be IgG positive. All serum samples that were competition-ELISA positive were subjected to SVNT and only samples that were IgM positive were subjected to qRTPCR. Samples were also classified as positive if the results from SVNT and/or qRTPCR and Competition-ELISA and/or RVFV IgM Antibody Capture ELISA were consistently positive. <i>Results:</i> The overall seropositivity rate for RVFV IgG antibodies was at 14%. This study showed that ovine are more susceptible to RVFV with anti-RVFV IgG, and IgM seropositivity rates of 17% and 23% respectively owing to the susceptibility of sheep to the RVFV. 	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Correlation with other techniques</p>		<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Epidemiological study</p>	
<p>28) Zouaghi K. <i>et al.</i> (2021). First Serological Evidence of Crimean-Congo Hemorrhagic Fever Virus and Rift Valley Fever Virus in Ruminants in Tunisia. Pathogens 2021, 10, 769.</p>	<ul style="list-style-type: none"> 699 serum samples from cattle, sheep, and goats were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> The overall seroprevalence was 2.3% (3.3 % in cattle, 2.6 % in sheep and no goats were seropositive). 			<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Epidemiological study</p>	
<p>29) Durand B. <i>et al.</i> (2020). Rift Valley fever in northern Senegal: A modelling approach to analyse the processes underlying virus circulation recurrence. Plos Neglected Tropical Diseases, 14(6), e0008009.</p>	<ul style="list-style-type: none"> Serological surveys were performed on both resident (n=168 sheep and 54 goats) and nomadic domestic herds (n=590 small ruminants and 70 cattle) in the same area using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> In resident herds, seroprevalence was 15.3% and in nomadic herds was 12.4%, respectively. 			<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Epidemiological study</p>	

<p>30) Boumart Z. <i>et al.</i> (2019). Safety and immunogenicity of a live attenuated Rift Valley Fever recombinant arMP-12ΔNSm21/384 vaccine candidate for sheep, goats and calves. Vaccine, 37(12), 1642-1650.</p>	<ul style="list-style-type: none"> • Evaluation of a live attenuated recombinant RVFV vaccine candidate in domestic ruminants. Immunogenicity among sheep, goats, and calves was followed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and VNT (Virus Neutralization Test). • <i>Results:</i> The immunogenicity among sheep, goats, and calves indicated that doses of 10⁴ -10⁶ TCID₅₀ elicited detectable antibodies by day 7 post-vaccination (PV) with antibody titers ranging from 0.6 log to 2.1 log on day 14 PV with sustained titers through day 28 PV. 	Correlation with other techniques			Vaccination monitoring	
<p>31) Mahmoud A. S. <i>et al.</i> (2018). Rift Valley fever virus: a serological survey in Libyan ruminants. Open Veterinary Journal, 8(2), 204-207.</p>	<ul style="list-style-type: none"> • 171 cattle and 686 small ruminant sera were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> Antibodies against RVFV were not detected in any of the 857 sera tested. 					Specificity data
<p>32) Fakour S. <i>et al.</i> (2017). The first positive serological study on Rift Valley fever in ruminants of Iran. Journal of vector borne diseases, 54(4), 348-352.</p>	<ul style="list-style-type: none"> • Blood samples were collected from 288 ruminants (118 cattle, 142 sheep, and 28 goats). The presence of RVFV-specific antibodies was investigated by using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and indirect immunofluorescence assay (IIFA). • <i>Results:</i> The results of both tests were positive for five (1.74%) of the 288 animals which included two cattle of 118 (1.7%), and three sheep of 142 (2.11%). The results of IIFA were correlated with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES results. 	Correlation with other techniques		Epidemiological study		
<p>33) Moiane B. <i>et al.</i> (2017). High seroprevalence of Rift Valley fever phlebovirus in domestic ruminants and African Buffaloes in Mozambique shows need for intensified surveillance. Infection ecology & epidemiology, 7(1), 1416248.</p>	<ul style="list-style-type: none"> • 1581 blood samples were collected in cattle, 1117 in goats, 85 in sheep, and 69 in African buffaloes, and the obtained sera were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> The overall seroprevalence of RVFPV domestic ruminants and African buffaloes was 25.6%. The highest was observed in cattle (37.3%) and African buffaloes (30.4%). 			Epidemiological study		

<p>34)Rissmann M. <i>et al.</i> (2017). Evidence for enzootic circulation of Rift Valley fever virus among livestock in Cameroon. Acta Tropica, 172, 7-13.</p>	<ul style="list-style-type: none"> • A serological and molecular study was performed on randomly selected serum samples of small ruminants (n=921) and cattle (n=1032). Initially, all serum samples were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, and samples of small ruminants were additionally tested using an indirect IgG /Gn ELISA. Positive results of ELISA were confirmed with the serum neutralization test (SNT). In the case of negative SNT, samples were tested in indirect immunofluorescence. In those cases, the indirect immunofluorescence was determining the final assessment of the sample. All sera that were positive or inconclusive in the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES were additionally tested in the ID Screen RIFT VALLEY FEVER IGM CAPTURE for specific presence of IgM. Finally, RNA was extracted of all IgM-positive sera and a quantitative real-time RT-PCR was run. • <i>Results:</i> seroprevalence of 3.4% for small ruminants and 13.5% for cattle, respectively. 34 sera from small ruminants and 145 sera from cattle were tested for RVFV-IgM antibodies (1 small ruminant and 3 cattle were found positive). All IgM-positive sera were analyzed by RT-PCR: one out of the four sera was weakly positive. 	<p>Correlation with other techniques</p>		<p>Epidemiological study</p>		
<p>35)Métras R. <i>et al.</i> (2016). The Epidemiology of Rift Valley Fever in Mayotte: Insights and Perspectives from 11 Years of Data. PLoS Negl Trop Dis 10(6): e0004783.</p>	<ul style="list-style-type: none"> • Retrospective and prospective serological surveys over 11 years in cattle and small ruminants (n= 5720) with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and the ID Screen RIFT VALLEY FEVER IGM CAPTURE. • <i>Results:</i> "This study showed the value of repeated serological testing to explain RVF population dynamics in this island population despite limited resources"(sic). 			<p>Epidemiological study</p>		
<p>36)Nanyingi M.O. <i>et al.</i> (2016). Seroepidemiological survey of Rift Valley fever virus in ruminants in Garissa, Kenya. Vector-Borne and Zoonotic Diseases, 17(2), 141-146.</p>	<ul style="list-style-type: none"> • 271 goats, 87 sheep, and 12 cattle were sampled, and the obtained sera were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> the overall seroprevalence was 27.6%. Sheep, cattle, and goats had seroprevalences of 32.2%, 33.3%, and 25.8%, respectively. 			<p>Epidemiological study</p>		

<p>37)Kim H., Park J. <i>et al.</i> (2015). Serological surveillance studies confirm the Rift Valley fever virus free status in South Korea. Trop Anim Health Prod 47:1427–1430.</p>	<ul style="list-style-type: none"> 2382 serum samples from goats and cattle were tested with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> All the samples were found negative. <p>The ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. shows a specificity of 100%.</p>			Epidemiological study	Specificity data
<p>38)Roger M. <i>et al.</i> (2014). Evidence for Circulation of the Rift Valley Fever Virus among Livestock in the Union of Comoros. PLoS Neglected Trop.Dis.;8(7): e3045.</p>	<ul style="list-style-type: none"> 103 goats and 88 cattle were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES; positive samples were confirmed by VNT. <i>Results:</i> Overall prevalence was 17.54%. All the -positive samples were also positive by VNT. 	Correlation with other		Epidemiological study	

CAMELIDS

<p>39)Adamu A.M. <i>et al.</i> (2021). Risk factors for Rift Valley fever virus seropositivity in one-humped camels (<i>Camelus dromedarius</i>) and pastoralist knowledge and practices in Northern Nigeria. One health, 13, 100340.</p>	<ul style="list-style-type: none"> 720 sera from camels were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> Overall prevalence of 19.9%. 			Epidemiological study	
<p>40)Cosseddu G.M. <i>et al.</i> (2021). Sero-surveillance of emerging viral diseases in camels and cattle in Nouakchott, Mauritania: an abattoir study. Tropical Animal Health and Production, 53, 1-6.</p>	<ul style="list-style-type: none"> 159 sera from camels and 118 sera from cattle were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> serological prevalence was 45% in camels and 16% in cattle. 			Epidemiological study	
<p>41)Kalthoum S. <i>et al.</i> (2021). Risk based serological survey of Rift Valley fever in Tunisia (2017–2018). Heliyon, 7(9).</p>	<ul style="list-style-type: none"> 173 sera from camels were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> no seropositive camels were detected. 			Epidemiologic study	Specificity data
<p>42)Musa H.I. <i>et al.</i> (2021). Survey of antibodies to Rift Valley fever virus and associated risk factors in one-humped camels (<i>Camelus dromedarius</i>) slaughtered in Maiduguri abattoir, Borno State, Nigeria. Tropical Animal Health and Production, 53, 1-8.</p>	<ul style="list-style-type: none"> 92 sera from camels were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> prevalence of 20.7%. 			Epidemiologic study	

<p>43)Selmi R. <i>et al.</i> (2020). First serological evidence of the Rift Valley fever <i>Phlebovirus</i> in Tunisian camels. Acta tropica, 207, 105462.</p>	<ul style="list-style-type: none"> 47 sera from camels were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> prevalence of 37%. 			Epidemiologic study	
<p>44)Gür S. <i>et al.</i> (2017). The first serological evidence for Rift Valley fever infection in the camel, goitered gazelle and Anatolian water buffaloes in Turkey. Tropical Animal Health and Production 49: 1531-1535.</p>	<ul style="list-style-type: none"> Serological study in camels, gazelles, and buffaloes, using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. <i>Results:</i> All gazelles were negative; only one of the 72 camels was seropositive (seroprevalence 1,3%). Seroprevalence buffaloes= 8,5%. <p>"Our data suggest that large-scale serological and virological studies are necessary to prevent possible dangers to Turkey and Europe" (sic).</p>			Epidemiologic study	
<p>45)Hassine T. <i>et al.</i> (2017). Emerging vector-borne diseases in dromedaries in Tunisia: West Nile, Bluetongue, Epizootic Haemorrhagic Disease and Rift Valley fever.</p>	<ul style="list-style-type: none"> Serostudy on 118 sera from dromedaries using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and serum neutralization. <i>Results:</i> No evidence for circulation of RVF with both techniques. <p>The ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES showed excellent specificity.</p>	Correlation with other techniques		Epidemiologic study	Specificity data
<p>46)Mroz C. <i>et al.</i> (2017). Seroprevalence of Rift Valley fever virus in livestock during inter-epidemic period in Egypt, 2014/15. BMC Vet Res;13(1):87.</p>	<ul style="list-style-type: none"> Serostudy in non-vaccinated and endemic livestock during an interepidemic period (in 221 camels, 438 sheep, 26 goats, 188 buffaloes) using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, the ID Screen RIFT VALLEY FEVER IGM CAPTURE, VNT, and IFA. <i>Results:</i> Seroprevalence: 0% in goats; 0,46% in sheep (4/438 sheep sera were subjected to Rift-IgM, all negative); 3,17% in camels; 5,85% in buffaloes. 	Correlation with other techniques		Epidemiologic study	
<p>47)Rissmann M. <i>et al.</i> (2017). Serological and genomic evidence of Rift Valley fever virus during inter-epidemic periods in Mauritania. Epidemiology and Infection, 145(5), 1058-1068.</p>	<ul style="list-style-type: none"> Serostudy of RVFV during an inter-epidemic period on small ruminants, cattle, and camels (1066 animals) tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES (and an-house IgG glycoprotein-based ELISA). Positive results were tested by SNT and IFA. Positive results for small ruminants and cattle tested using the ID Screen RIFT VALLEY FEVER IGM CAPTURE, for camels using in-house indirect IgM Elisa for camelids. IgM-positive samples were further tested for viral RNA. <i>Results:</i> Prevalence small ruminants 3,8%, cattle 15,4%, and camels 32%; only one bovine sample positive in IgM. 	Correlation with other techniques		Epidemiologic study	

<p>48)Abdallah M.M. <i>et al.</i> (2016). A survey of Rift Valley fever and associated risk factors among the one-humped camel (<i>Camelus dromedaries</i>) in Sudan. Irish veterinary journal, 69, 1-6.</p>	<ul style="list-style-type: none"> • 240 sera from camels were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> prevalence of 9.6%. 			Epidemiological study	
<p>49)Ould El Mamy A. <i>et al.</i> (2011). Unexpected Rift Valley Fever Outbreak, Northern Mauritania. Emerging Infectious Diseases. Vol. 17, No. 10.</p>	<ul style="list-style-type: none"> • 262 sera from small ruminants and 279 sera from camels were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> prevalence of 33% in camels and 44% in small ruminants, respectively. 			Epidemiological study	

WILDLIFE AND OTHER SPECIES

<p>50)Atuman Y.J. <i>et al.</i> (2022). Serological evidence of antibodies to Rift Valley fever virus in wild and domestic animals in Bauchi State, Nigeria. Veterinary Medicine International, 2022.</p>	<ul style="list-style-type: none"> • Sera samples from 106 wild animals, 300 cattle, and 200 horses were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> Overall apparent seroprevalence of RVFV in domestic and wild animals was 7.1% with cattle having seroprevalence of 11.3%, wildlife 8.5%, and none of the sera from horses showed detectable antibodies to RVFV. Of the seven wildlife species tested, antibodies to RVFV were detected in waterbuck (10.4%) wildebeest (11.3%), eland (22.6%), and elephant (3.8%) ($p < 0.05$), and none of the sera from zebra, kudu, and hartebeest show detectable antibodies to RVFV. 			Epidemiological study	
<p>51)Chambaro H.M. <i>et al.</i> (2022). An unusually long Rift Valley fever inter-epizootic period in Zambia: Evidence for enzootic virus circulation and risk for disease outbreak. PLoS neglected tropical diseases, 16(6), e0010420.</p>	<ul style="list-style-type: none"> • Sera from sheep (n = 13), goats (n =259), and wild ungulates (n = 285, including buffaloes, impalas, warthogs, and hartebeests) were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> seroprevalence was significantly high in wild ungulates (33.7%; 96/285) compared to domestic ruminants (5.6%; 16/272). 			Epidemiological study	
<p>52)Gakuya F. <i>et al.</i> (2022). Evidence of co-exposure with <i>Brucella spp</i>, <i>Coxiella burnetii</i>, and Rift Valley fever virus among various species of wildlife in Kenya. PLOS Neglected Tropical Diseases, 16(8), e0010596.</p>	<ul style="list-style-type: none"> • 363 sera from 16 different wildlife species (comprising 199 samples from buffaloes, 36 giraffes, 21 zebras, 7 elands, 15 oryxes, 11 waterbucks 11 gazelles, 9 impalas, 8 cheetahs, 8 elephants, 8 warthogs, 7 rhinos, 5 lions, 4 wildebeests, 3 hartebeest and 1 leopard) were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> The overall prevalence was 18.9%; antibodies were detected in buffaloes, elands, wildebeest, impalas, oryxes, giraffes, elephants, rhinos, and cheetahs. 			Epidemiological study	

<p>53)Ndengu M. <i>et al.</i> (2020). Seroprevalence and associated risk factors of Rift Valley fever in cattle and selected wildlife species at the livestock/wildlife interface areas of Gonarezhou National Park, Zimbabwe. Onderstepoort Journal of Veterinary Research, 87(1), 1-7.</p>	<ul style="list-style-type: none"> • 1011 sera from cattle and 161 sera collected from wild animals (111 buffaloes, 32 impalas, and 18 kudus) were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> Prevalence in cattle was 46.7%. Prevalence in buffaloes was 11.7%. All impala and kudu samples tested negative. 		Epidemiological study	
<p>54)Rissmann M. <i>et al.</i> (2020). Competency of amphibians and reptiles and their potential role as reservoir hosts for Rift Valley Fever Virus. Viruses, 12(11), 1206.</p>	<ul style="list-style-type: none"> • 30 African common toads and 32 common agamas were experimentally infected with 2 RVFV strains (MP12 and ZH501 strains) to test the competency of amphibians and reptiles for RVFV. Serology (on lymph and serum samples) was followed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and VNT. • <i>Results:</i> no seroconversion was detected in toads; only a few RVFV MP-12-infected agamas (n = 2 out of 13) developed a faint neutralizing antibody response (at 16 and 21 dpi). 2 other agamas tested positive using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, seroconversion started at 16dpi. <p>The study supposes that toads do not seem to play a role as a reservoir for RVFV at all; the role of agamas, albeit of minor importance, cannot be excluded.</p>		Experimental infection	
<p>55)Métras R. <i>et al.</i> (2017). Absence of Evidence of Rift Valley Fever Infection in <i>Eulemur fulvus</i> (Brown Lemur) in Mayotte During an Interepidemic Period. Vector Borne and Zoonotic Diseases;17(5):358-360.</p>	<ul style="list-style-type: none"> • 72 brown lemurs were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and RT-PCR. • <i>Results:</i> All sera were found negative using both tests. <p>The first publication on the use of the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES for lemurs (no positive samples, but validation of specificity for this species).</p>		Epidemiological study	Specificity data
<p>56)Wesula Lwande O. <i>et al.</i> (2015). Spatio-temporal variation in prevalence of Rift Valley fever: a post-epidemic serum survey in cattle and wildlife in Kenya. Infection Ecology & Epidemiology, 5:1, 30106, iee.v5.30106.</p>	<ul style="list-style-type: none"> • A post-epidemic RVFV serum survey in cattle and wildlife using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> All the cattle were negative; 11,6% prevalence in wildlife species (buffaloes, black rhinoceros, elephants, warthogs, and wildebeest tested positive). No detection in baboons, giraffes, vervet monkeys, and zebras. 		Epidemiological study	

HUMANS

<p>57)de Glanville W.A. <i>et al.</i> (2022). Inter-epidemic Rift Valley fever virus infection incidence and risks for zoonotic spillover in northern Tanzania. PLoS Negl Trop Dis 16(10):e0010871.</p>	<ul style="list-style-type: none"> • Serum samples collected from 558 people and 9476 livestock (3582 cattle, 3303 goats, and 2584 sheep) were screened using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> The overall seroprevalence in livestock was 2.8% and 8.2% in people, respectively. 			Epidemiological study	
<p>58)Oragwa A.O. <i>et al.</i> (2022). Serologic evidence of silent Rift Valley fever virus infection among occupationally exposed persons in northern Nigeria. The Journal of Infection in Developing Countries, 16(05), 881-887.</p>	<ul style="list-style-type: none"> • Serum samples collected from 196 individuals comprising butchers (n = 121), abattoir/slaughterhouse workers (n = 55), and livestock keepers (n = 20) were screened using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> 39 (19.9%) of the 196 samples were positive for RVFV antibodies. 21.5% (26/121) butchers, 16.4% (9/55) abattoir workers, and 20% (4/20) livestock keepers were seropositive. 			Epidemiological study	
<p>59)Sindato C. <i>et al.</i> (2022). Rift Valley fever seropositivity in humans and domestic ruminants and associated risk factors in Sengerema, Ilala, and Rufiji districts, Tanzania. International Journal of Infectious Diseases, 122, 559-565.</p>	<ul style="list-style-type: none"> • Blood samples from 664 humans, 361 cattle, 394 goats, and 242 sheep were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> The overall anti-RVFV IgG seroprevalence in humans and animals was 2.1% and 9.5%, respectively. 			Epidemiological study	
<p>60)Ibrahim M. <i>et al.</i> (2021). Sero-prevalence of Brucellosis, Q-fever and Rift Valley Fever in humans and livestock in Somali region, Ethiopia. PLoS Neglected Tropical Diseases, 15(1), e0008100</p>	<ul style="list-style-type: none"> • Seroepidemiological survey in an area without RVF clinical signs or outbreaks using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES in humans (n=190) and livestock (108 cattle, 141 camels, 252 goats, and 229 sheep). • <i>Results:</i> Seroprevalence was 13,2% in humans, 17.9% in cattle, 42.6% in camels, 6.3% in goats, and 7.4% in sheep, respectively. 			Epidemiological study	
<p>61)Kumalija M.S. <i>et al.</i> (2021). Detection of Rift Valley fever virus inter-epidemic activity in Kilimanjaro Region, North Eastern Tanzania. Global health action, 14(1), 1957554.</p>	<ul style="list-style-type: none"> • Blood samples from 2986 goats and 266 humans were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> 13.2% and 23.3% of tested humans and goats, respectively, had circulating antibodies to RVFV. 			Epidemiological study	

<p>62) Budodo R. <i>et al.</i> (2020). Serological evidence of exposure to Rift Valley, Dengue and Chikungunya Viruses among agropastoral communities in Manyara and Morogoro regions in Tanzania: A community Survey. doi.org/10.1101/2020.01.16.908830.</p>	<ul style="list-style-type: none"> • Seroepidemiological survey in humans (n=122) using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. • <i>Results:</i> seroprevalence: 16,39%, all samples were PCR-negative. 			Epidemiological study		
<p>63) Opayele A. <i>et al.</i> (2018). Rift Valley fever virus infection among livestock handlers in Ibadan, Nigeria. Journal of Immunoassay and Immunochemistry, Vol. 39, No. 6, 609–621.</p>	<ul style="list-style-type: none"> • Seroepidemiological survey among humans (n=265) using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES (in parallel with ID Screen® RIFT IgM ELISA) in the absence of outbreak or clinical reports. • <i>Results:</i> The seroprevalence was 14,5%, with no evidence of new infection. 			Epidemiological study		
<p>64) Mohamed A.M. <i>et al.</i> (2014). Seroepidemiological survey on Rift Valley fever among small ruminants and their close human contacts in Makkah, Saudi Arabia, in 2011. Rev Sci Tech; 33(3): 903–915.</p>	<ul style="list-style-type: none"> • Seroepidemiological survey during pilgrimage season 2011 in Makka on 500 sacrificed small ruminants and on 100 humans in close contact with the animals at the slaughterhouse. Sera were tested using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. All positive samples were retested using the ID Screen RIFT VALLEY FEVER IGM CAPTURE. • <i>Results:</i> Seroprevalence was 16,8% in animals and 9% in humans, respectively, with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES; no sample was IgM positive. 			Epidemiological study		

PERFORMANCE STUDIES

<p>65)Pedarrieu A. <i>et al.</i> (2021). External quality assessment of Rift Valley fever diagnosis in countries at risk of the disease: African, Indian Ocean and Middle-East regions. Plos one, 16(5), e0251263.</p>	<ul style="list-style-type: none"> • A serological inter-laboratory proficiency test was implemented to assess the capacity of veterinary laboratories to detect antibodies against RVFV. The ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, another commercial kit, and two in-house serological assays for the detection of RVFV-specific IgG antibodies were tested. Out of the 18 laboratories that participated in the PT, 14 used the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES. The analytical performance of test sensitivity and specificity based on the seroneutralization test considered as the reference was 100%. The panel consisted of 20 samples of sera including negative (n = 7) and positive sera (n = 11), as well as sera at the limit of detection (n = 2). • Results: 13 out of 14 laboratories that used the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES reported correct results for all the samples regarding the criteria of sensitivity, repeatability, specificity, and dose-response relationship; compared to SNT, the 13 laboratories that used the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES reported 100% correct results (Cohens ‘Kappa value = 1) whereas a kappa value of 0.88 was reported for the other commercial kit used by three laboratories. The ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES detected 100% (13 pos/13 laboratories) for the serum numbered 16 (dilution 1:4), 46% (6 neg/13 laboratories) for the serum numbered 17 (dilution 1:8) which is an acceptable percentage, as the probability to detect the serum as negative or positive is equal and 100% (13 neg/13 laboratories) for the serum numbered 18 (dilution 1:16). The results obtained by the three labs that use the other commercial kit detected 0% (3 neg/3 laboratories) for the panel sera numbered 16 (dilution 1:8), 17 (dilution 1:16) and 18 (dilution 1:32) compared to the SNT gold reference status. Even if the findings are only from three laboratories, they demonstrate lower sensitivity than the other commercial kit. <p>The ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES showed excellent performance, better than the other commercial kit.</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Interlaboratory proficiency test</p>
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<p>66)Pérez-Ramírez E. <i>et al.</i> (2020). External quality assessment of Rift Valley fever diagnosis in 17 veterinary laboratories of the Mediterranean and Black Sea regions. Plos One, 15(9), e0239478.</p>	<ul style="list-style-type: none"> An external quality assessment (EQA) to evaluate the RVF diagnostic capacities of beneficiary veterinary laboratories was performed using a panel of 10 sheep sera (6 positive and 4 negative). The sera were analyzed using the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and VNT. <i>Results:</i> 16 out of 17 laboratories reported correct results for all the samples showing excellent reproducibility between laboratories (kappa value = 1). Only one laboratory obtained one incorrect result (one sample was reported as doubtful instead of positive), also reaching a high reproducibility (kappa value = 0.82). A laboratory providing two different datasets produced 100% of correct results with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES kit and four false negative results with an alternative commercial kit. <p>The ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES showed excellent performance, better than the other commercial kit.</p>					Interlaboratory proficiency test
<p>67)de Bronsvort B. <i>et al.</i> (2019). Comparison of Two Rift Valley Fever Serological Tests in Cameroonian Cattle Populations Using a Bayesian Latent Class Approach. Front. Vet. Sci. 6:258.</p>	<ul style="list-style-type: none"> Comparison of performances of the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES with PRNT in a serological study among cattle in naturally infected populations (n=1473). <i>Results: both the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES and PRNT have comparable performances:</i> the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES had an estimated diagnostic sensitivity (Se) of 0.854 and specificity (Sp) of 0.986 using all the data and splitting the population by geographical region compared to 0.844 and 0.981 for the PRNT80. <p>“This study supports the use of the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES as a relatively low-cost, easy-to-use surveillance tool for the African context (sic)”.</p>	Correlation with other techniques		Epidemiological study	Performance evaluation	
<p>68)Lindahl J.F. <i>et al.</i> (2019). A multiplex fluorescence microsphere immunoassay for increased understanding of Rift Valley fever immune responses in ruminants in Kenya. Journal of virological methods, 269, 70-76.</p>	<ul style="list-style-type: none"> Evaluation of a multiplexing fluorescence microsphere immunoassay (FMIA) for the detection of IgG and IgM antibodies in ruminant sera against the RVFV nucleocapsid Np, glycoprotein Gn, and non-structural protein NSs. Sheep and cattle sera from a region with previous outbreaks were tested by FMIA, the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, and another commercially available competitive ELISA. <i>Results:</i> FMIA revealed strong detection of RVFV antibodies against the Np, Gn and NSs antigen targets. The FMIA Np and Gn targets showed to correlate well with the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES results for IgG detection; rather, there is a poor correlation of the FMIA to another commercial kit. 	Correlation with other techniques				

	<p>This was supported by the lower sensitivity and specificity of the FMIA when compared to the other commercial kit versus the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES.</p>				
<p>69) Monaco F. <i>et al.</i> (2015). First External Quality Assessment of Molecular and Serological Detection of Rift Valley Fever in the Western Mediterranean Region. PLoS ONE 10(11): e0142129.</p>	<ul style="list-style-type: none"> • An assessment of the diagnostic capacities of ten laboratories involved in the RVF surveillance was performed. For the serological diagnosis of RVF, each participant received a panel of 15 ruminant sera composed of 5 negative and 10 positive samples (5 samples were from RVFV vaccinated sheep (n = 4) and goats (n = 1) seropositive for IgG and 5 samples from 5 naturally infected springboks RVF seropositive for both IgG and IgM. To detect the RVF IgG antibodies, all participating laboratories used the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, and all laboratories used the ID Screen RIFT VALLEY FEVER IGM CAPTURE for the serological detection of IgM. • <i>Results:</i> For the External Quality Assessment targeting IgG and IgM antibodies methods 9 out of the 10 laboratories reported 100% of correct results, whilst one laboratory reported all correct results except one false-positive. 				External Quality Assessment
<p>70) Kortekaas J. <i>et al.</i> (2012). European ring trial to evaluate ELISAs for the diagnosis of infection with Rift Valley fever virus. Journal of Virological Methods, 187(1), 177-181.</p>	<ul style="list-style-type: none"> • A ring trial was organized to evaluate Rift Valley fever virus (RVFV) ELISAs by European laboratories. Five ELISAs, including the ID Screen RIFT VALLEY FEVER COMPETITION MULTI-SPECIES, were evaluated by six participants. Sera were derived from cattle or sheep and originated from either a RVFV endemic area, a RVFV-free area or from experimental infection studies. • <i>Results:</i> Diagnostic sensitivity and specificity of the ID Screen® ELISA were found to be 98% and 100%, respectively, by most labs, which was higher than for the other IgG / competition ELISAs tested. 				Interlaboratory proficiency test