EXTERNAL REFERENCES

ID SCREEN CCHF DOUBLE ANTIGEN MULTI-SPECIES

Last update: November 2025

Publications / References:

PERFORMANCE EVALUATION

1)Owen L. *et al*. (2025). **Multi-assay evaluation of Crimean-Congo Haemorragic Fever Virus exposure in Uganda: Traditional tools and Emerging approaches**. Poster presented at 13th International Congress for Veterinary Virology, 2-5 September 2025, Portorož, Slovenia.	• evaluation of 4 ELISAs detecting CCHFV antibodies (including the ID Screen CCHF Double Antigen Multi-species) on **10 human convalescent samples from confirmed CCHF cases and 60 community samples from livestock and non-livestock farmers**. • *Results*: -**all assays demonstrated 100% sensitivity** in identifying 10 CCHF convalescent samples -in community samples, **the ID screen presented 94% agreement with Panadea, 78% agreement with Euroimmun test and 66% agreement with VectorBest.**	**Comparison with competitors**	**Detection in humans**			**Sensitivity data**
2)Sas M.A. *et al*. (2018). **A novel double-antigen sandwich ELISA for the species-independent detection of Crimean-Congo hemorrhagic fever virus-specific antibodies**. Antiviral Research 151, 24-26.	• development and validation of the ID Screen CCHF Double Antigen Multi-species for the detection of anti-CCHFV nucleoprotein antibodies; positive sera from 95 **cattle** and 176 **small ruminants** from CCHF-endemic regions (CCHF antibody status previously confirmed by two other serological assays) and negative sera from 402 cattle and 804 small ruminants from countries considered outside of the CCHFV endemic zone; suitability of the ID Screen CCHF Double Antigen Multi-species was tested on **different species, including humans**. • *Results*: -**specificity 100%** -**sensitivity 99.9%** -**suitability** of the ID for **cattle, goats , sheep, camels, rats,ferrets, dogs , raccoons, raccoon, dogs, foxes, hares, pigs**, **humans**.					**Specificity and sensitivity data**

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	The ID Screen CCHF Double Antigen Multi-species is a highly specific and sensitive novel assay suitable for use in different species including humans.					

EXCLUSIVITY OVER OTHER NAIROVIRUS SPECIES

3)Hartlaub J. *et al.* (2021). **Cross-Reaction or Co-Infection? Serological Discrimination of Antibodies Directed against Dugbe and Crimean-Congo Hemorrhagic Fever Orthonairovirus in Nigerian Cattle.** Viruses 13, 1398.	• 300 Nigerian **cattle** sera (150 CCHFV seropositive and 150 CCHV seronegative samples) with CCHF status validated using serological assays including the ID Screen CCHF Double Antigen Multi-species were screened for **Dugbe Virus (DUGV)** antibodies via N protein-based ELISAs, indirect immunofluorescence (**IFA**), and **neutralization assays**. • *Results*: no correlation between the ID Screen CCHF Double Antigen Multi-species and the DUGV ELISA results (cross-tabulation and comparative ROC analyses); statistics have not shown a significant association for DUGB Elisa and the ID Screen CCHF Double Antigen Multi-species while cross-reactions were observed when using IFA **The ID Screen CCHF Double Antigen Multi-species does not present cross-reactions with Dugbe virus antibodies.**	Correlation with other techniques				
4)Hartlaub J. *et al.* (2021). **Deciphering Antibody Responses to Orthonairoviruses in Ruminants.** Microorganisms 2021, 9, 1493.	• experimental infection studies involving **sheep** (n=13) and **cattle** (n=5) with **Nairobi Sheep Disease Virus (NSDV)**; all the sera were seropositive in NSDV and were run in three different CCHFV ELISA systems including the ID Screen CCHF Double Antigen Multi-species and immunofluorescence test (**IFA**). • *Results:* all sera were negative with the ID Screen CCHF Double Antigen Multi-species with one exception, one hyperimmunized calf tested positive with all of the assays whereas significant cross-reactivities were observed in IFA. **The ID Screen CCHF Double Antigen Multi-species does not present cross-reactions with Nairobi Sheep Disease Virus.**	Correlation with other techniques			Experimental infection	
5)Grech-Angelini S. *et al.* (2020). **Crimean-Congo Hemorrhagic Fever Virus Antibodies among Livestock on Corsica, France, 2014–2016.** Emerging Infectious Diseases; 26(5):1041-1044.	• 3890 sera from livestock (**cattle, sheep, and goats**) were tested with the ID Screen CCHF Double Antigen Multi-species. **Neutralizing assay (PPRNT)** was then applied on 35 positive and 5 negative sera to confirm the serological status and detect possible immune cross-reactions with the **Hazara virus** and **Dugbe virus**. • *Results:* -overall estimated seroprevalence was 9.1% -of 35 ELISA-positive serum samples tested, none showed neutralizing antibodies against Hazara and Dugbe viruses	Correlation with other techniques				

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	-of 35 ELISA-positive serum samples, 23 had neutralizing antibodies against CCHFV -no ELISA-negative serum sample showed neutralizing antibodies against CCHFV, Hazara virus, or Dugbe virus. **The ID Screen CCHF Double Antigen Multi-species does not present cross-reactions with Hazara and Dugbe viruses.**					
6)Hartlaub J. *et al*. (2020). **Sheep and Cattle Are Not Susceptible to Experimental Inoculation with Hazara Orthonairovirus, a Tick-Borne Arbovirus Closely Related to CCHFV.** Microorganisms 8, 1927.	• one **calf** and one **sheep** were hyper-immunized with inactivated **Hazara virus**, and antisera were tested using the ID Screen CCHF Double Antigen Multi-species and other serological methods (**WB** and **IFA**). • *Results:* The ID Screen CCHF Double Antigen Multi-species was clearly able to discriminate between HAZV and CCHFV antibodies, while cross-reactivities between these viruses in IFA and WB may occur **The ID Screen CCHF Double Antigen Multi-species does not present cross-reactions with Hazara virus.**	Correlation with other techniques			Experimental infection	

EPIDEMIOLOGICAL STUDIES

RUMINANTS

7)Ellis I. *et al* (2025). **Circulation of Crimean-Congo Hemorrhagic Fever Virus (CCHFV) in Guinean ruminants**. Poster presented at 13th International Congress for Veterinary Virology, 2-5 September 2025, Portorož, Slovenia.	• sera from 380 **cattle**, 287 **sheep**, and 208 **goats** were tested using the ID Screen CCHF Double Antigen Multi-species; cattle samples were also evaluated with **Luminex** (n= 208) and **seroneutralization** (n=20). • *Results*: -seroprevalence in cattle: 90.8% -seroprevalence in sheep: 35.2% -seroprevalence in goats: 23.6% ***-comparison of the ID Screen and Luminex: extremely high concordance (K=0.82) and good correlation (R=0.74)*** **(sic)** ***-global correlation between the ELISA titer and the neutralizing titer*** **(sic).**	Correlation with other techniques				

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8)Barbic L. *et al.* (2025). **Seroprevalence study for selected zoonotic vector-borne pathogens in sheep from endemic areas of Croatia**. Front. Vet. Sci. 12:1602706.	• 300 **sheep** sera from 7 farms were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: none of the serum samples tested positive.					Specificity data
9)Bennia S.E.G. *et al.* (2025). **The first serological detection and risk factors analysis of tick-borne Crimean-Congo Hemorrhagic Fever virus among sheep in Algeria**. Journal of Zoonotic Diseases, 2025, 9 (2): 752-761.	• 276 **sheep** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 39.13%.					
10)Fafetine J. *et al.* (2025). **Zoonotic arbovirus infections in cattle in Mozambique with special reference to Crimean-Congo hemorrhagic fever virus (CCHFV) and rift valley fever virus (RVFV)**. Virology Journal, 22(1), 185.	• 460 **cattle** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 50%.					
11)Jakimovski D. *et al.* (2025**). One health investigation following a cluster of Crimean–Congo haemorrhagic fever, North Macedonia, July to November 2023**. Euro Surveill; 30(4):pii=2400286.	• 17 sera from small ruminants (**sheep** and **goats**) were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 58.8%.					
12)Leil T.H.A.A.A. *et al.* (2025). **Seroepidemiological study of Crimean-Congo hemorrhagic fever (CCHF) in Wasit governorate, Iraq 2024: a preliminary assessment**. Archives of Veterinary Science, 30(2).	• sera from 104 **sheep** and 92 **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in sheep: 35.6% -in goats: 39.1%.					
13)Raheemi H. *et al.* (2025). **Serosurveillance of Crimean-Congo hemorrhagic fever virus antibodies in livestock as a reservoir for human infection in Afghanistan**. One Health, 101065.	• 1152 sera from **cattle**, **sheep** and **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in cattle: 21.9% -in sheep: 5.2% -in goats: 10.6%.					

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14)Sadio B.D. *et al.* (2025). **Re-emergence of Crimean Congo hemorrhagic fever virus in Kedougou, south-eastern Senegal in 2023: Epidemiological and zoological investigations of the first symptomatic human case**. One Health, 101040.	• sera from 35 **goats**, 35 **sheep** and 15 **cattle**, were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was: -in cattle: 58.3% -in goats: 33.33% -in sheep: 8.33%.					
15)Saleh W.M.M. *et al.* (2025). **Seroepidemiological study of crimean-congo hemorrhagic fever (CCHF) in small ruminants in Thi-qar governorate, southern Iraq, 2023**. Adv. Anim. Vet. Sci, 13(2), 365-371.	• sera from 62 **goats** and 242 **sheep** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in goats: 35.5%% -in sheep: 52.9%.					
16)Baz-Flores S. *et al*. (2024). **Animal exposure model for mapping Crimean-Congo hemorrhagic fever virus emergence risk**. Emerging Infectious Diseases, 30(4), 672.	• sera from 1220 **sheep** and 1220 **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was: -in sheep: 3% -in goats: 3.9%.					
17)Dahourou L.D. *et al*. (2024). **Detection of Crimean-Congo hemorrhagic fever virus antibodies in cattle in Kenedougou and Mouhoun provinces in Burkina Faso**. Open Veterinary Journal, 14(8), 1912.	• 371 **bovine** sera collected in 74 herds were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -at animal-level: 72.2% -at herd-level: 96%.					
18)Dahourou L.D. *et al*. (2024). **Serological evidence and factors associated with Crimean–Congo haemorrhagic fever in sheep in Burkina Faso**. Veterinary Medicine and Science, 10(2), e1322.	• 364 **sheep** sera from 73 herds were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -at animal-level: 13.1% -at herd-level: 52%.					
19)Daodu O.B. *et al*. (2024). **Serological evidence of tick-borne Crimean-Congo haemorrhagic fever and Dugbe orthonairovirus infections in cattle in Kwara State in northern Nigeria indicate independent endemics**. PLoS Negl Trop Dis 18(10): e0012539.	• 877 **cattle** sera were tested using 3 ELISA tests (FLI CCHFV in-house indirect ELISA, cattle-adapted VectoCrimean ELISA and the ID Screen CCHF Double Antigen Multi-species); in order to increase the accuracy of the seroprevalence, results for each sample were interpreted based on agreement among theELISA tests conducted (a sample is considered to be positive or negative if all the	**Correlation with other techniques**				

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	three assays agree; if one or more of the ELISA tests were not in agreement, the tests were repeated for that particular sample and if disagreement were to persist, the divergent result were presented as doubtful. • *Results*: seroprevalence was 71.9%.
20)Diakite M.A. *et al.* (2024). **Seroprevalence and factors associated with CCHF virus infection in cattle and sheep in Mopti region (Mali)**. Archives of Razi Institute, 79(6):1257-1262.	• sera from 99 **cattle** and 100 **sheep** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in cattle: 58.6% -in sheep: 27%.
21)Gahn M.C.B. *et al*. (2024). **Large-Scale Serological Survey of Crimean-Congo Hemorrhagic Fever Virus and Rift Valley Fever Virus in Small Ruminants in Senegal**. Pathogens, 13, 689.	• sera from 1130 **sheep** and 997 **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in sheep: 16.4% -in goats: 11.6%.
22)Hashim D.A. *et al*. (2024). **Seroprevalence of Crimean–Congo Hemorrhagic Fever in Cattle in Basrah Province, Iraq**. Basrah Journal of Veterinary Research, 23(3), 118-129.	• 172 **cattle** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 42.44%.
23)Igah O.E. *et al*. (2024). **Detection of Crimean-Congo haemorrhagic fever virus circulating in ticks and cattle in Plateau and Kaduna States, Nigeria**. Sokoto Journal of Veterinary Sciences, 22(4), 283-290.	• 333 **cattle** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 67%.
24)Ngom D. *et al*. (2024). **Crimean-Congo haemorrhagic fever outbreak in Northern Senegal in 2022: Prevalence of the virus in livestock and ticks, associated risk factors and epidemiological implications**. Zoonoses and Public Health, 71(6), 696-707.	• sera from 80 **goats**, 99 **sheep**, and 57 **cattle** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in goats: 21.2% -in sheep: 35.4% -in cattle: 80.4%.

25)Raheemi H. *et al.* (2024). **Epizootiology and seroprevalence of Crimean-Congo hemorrhagic fever virus in ruminant population of East Afghanistan**. Kuwait Journal of Science, 51(1), 100131.	• sera from 192 **goats**, 192 **sheep**, and 384 **cattle** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in goats: 18.2% -in sheep: 13% -in cattle: 22.4%.
26)Samkange A. *et al.* (2024). **Serological Evidence of Crimean–Congo Haemorrhagic Fever in Livestock in the Omaheke Region of Namibia**. Microorganisms, 12(4), 838.	• 100 **bovine** sera (from 24 farms) and 100 **ovine** sera (from 22 farms) were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in bovine at animal-level: 36% at herd-level: 62.5% -in sheep at animal-level: 22% at herd-level: 45.5%.
27)Altaliby M.A.S. *et al.* (2023). **Seroprevalence of Crimean-Congo haemorrhagic fever in sheep and goats in Iraq**. Bulgarian Journal of Veterinary Medicine, 26, No 2, 202-207.	• sera from 120 **sheep** and 80 **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: prevalence was -in sheep: 19.16% -in goats: 6.25%.
28)Atim S.A. *et al*. (2023). **Prevalence of Crimean-Congo haemorrhagic fever in livestock following a confirmed human case in Lyantonde district, Uganda**. Parasites & Vectors, 16(1), 1-10.	• outbreak investigation in the animal population following the death from CCHF of a cattle trader: blood samples from 117 **cattle** and 93 **goats** were analyzed using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was: -in cattle: 94% -in goats: 89.3%.
29)Babaoglu A. R. *et al.* (2023). **Crimean-Congo Hemorrhagic Fever Virus Infection in Domestic Ruminants in Van Province, a Non-endemic Region in Turkey**. Indian Journal of Animal Research, 1, 6.	• 491 **cattle, sheep, and goats** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was: -in cattle: 11.6% -in sheep: 64.45% -in goats: 81.63%.
30)Matthews J. *et al*. (2023). **Serological Prevalence of Crimean–Congo Hemorrhagic Fever Virus Infection in Small Ruminants and Cattle in The Gambia**. Pathogens, 12, 749.	• 1413 sera from livestock (**small ruminants and cattle**) were tested in duplicate using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was:

	-in cattle: 59.9% -goats: 9% -sheep: 18.9%.					
31)Nyakarahuka L. *et al*. (2023). **Seroepidemiological investigation of Crimean Congo hemorrhagic fever virus in livestock in Uganda, 2017**. PloS one, 18(11), e0288587.sera from 551 cattle and 253 buffaloes	• sera from 1091 **goats**, 358 **sheep**, and 1732 **cattle** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in goats: 48.7% -in sheep: 49.2% -in cattle: 16.9%.					
32)Sarangi L.N. *et al.* (2023). **Seroprevalence of Crimean-Congo haemorrhagic fever in Indian cattle and buffaloes**. Journal of Vector Borne Diseases, 60(3), 259-264.	• sera from 551 **cattle** and 253 **buffaloes** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in cattle: 9.92% -in buffaloes: 5.84%.					
33)Simo Tchetgna H. *et al*. (2023) **Molecular and serological evidence of Crimean-Congo hemorrhagic fever orthonairovirus prevalence in livestock and ticks in Cameroon**. Front. Cell. Infect. Microbiol. 13:1132495.	• sera from **cattle** (n=441), **sheep** (147), and **goats** (n=168). CCHFV-specific antibodies were detected using the ID Screen CCHF Double Antigen Multi-species and confirmed using a modified **seroneutralization test (SNT)**. • *Results*: seroprevalence was: -in cattle: 98.18%, with 87.5% of positive sera confirmed using SNT -in sheep: 15.65%, with 80% of positive sera confirmed using SNT -in goats: 6.55%., with 80% of positive sera confirmed using SNT.	**Correlation with other techniques**				
34)Bratuleanu B. et al. (2022). **Seroprevalence of Crimean-Congo Hemorrhagic Fever Among Small Ruminants from Southern Romania**. Vector-Borne and Zoonotic Diseases, 22(7), 397-401.	• serological study in sheep (n=181) and goats (n=71) using the ID Screen CCHF Double Antigen Multi-species. In addition, 96 serum samples from sheep from France were used as a reference population, as there is no evidence of CCHFV circulation in continental France. • *Results*: -seroprevalence was: -in sheep: 29.8% -in goats: 57.7%.					

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35)Duscher G. G. *et al.* (2022). ***Hyalomma spp*. in Austria—The Tick, the Climate, the Diseases and the Risk for Humans and Animals**. Microorganisms, 10(9), 1761.	• 897 **cattle** sera were tested using the ID Screen CCHF Double Antigen Multi-species in a CCHF-free area. • *Results*: None of the 897 sera delivered a positive result for CCHF antibodies. ***Although no positive cattle were identified in this study, the results are of great importance while observing the epidemiological situation. These data represent the baseline and can be compared to future monitoring studies.* (sic)**					Specificity data
36)Dzikwi-Emennaa A.A. *et al.* (2022). **Detection of Crimean-Congo Hemorrhagic Fever Virus Antibodies in Cattle in Plateau State, Nigeria**. Viruses 2022, 14, 2618.	• 184 **cattle** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 30.4%.					
37)Fanelli A. *et al*. (2022). **First serological evidence of Crimean–Congo haemorrhagic fever virus in transhumant bovines in Italy**. Transboundary and Emerging Diseases.	• sera from 794 **cattle** were screened using the ID Screen CCHF Double Antigen Multi-species. • *Results*: and herd-level seroprevalence was: -at animal-level: 1.89% -at herd-level: 29.63%.					
38)González Gordon L. *et al*. (2022), **Seroepidemiology of Crimean-Cong Haemorrhagic Fever among cattle in Cameroon: Implications from a One Health perspective**, PLoS Neglected Tropical Diseases, vol. 16, no. 3, e0010217.	• CCHFV serological survey in pastoral (n=1498) and dairy **cattle** (n=60) using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was: -in pastoral cattle: 56% -in dairy cattle: 6.7%.					
39)Lule S. A. *et al*. (2022). **Widespread exposure to Crimean-Congo haemorrhagic fever in Uganda might be driven by transmission from *Rhipicephalus* ticks: Evidence from cross-sectional and modelling studies.** Journal of Infection, 85(6), 683-692.	• 419 **cattle** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 69.7%.					
40)Lysholm S. *et al*. (2022). **Seroepidemiology of selected transboundary animal diseases in goats in Zambia**. Preventive Veterinary Medicine, 206, 105708.	• 962 samples from **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 3.3%.					

41)Satrovic L. *et al.* (2022). **First evidence of Crimean-Congo haemorrhagic fever virus circulation in Bosnia and Herzegovina. Veterinary Medicine and Science**, 8(3), 1271-1275.	• 176 **sheep** sera were tested using the ID Screen CCHF Double Antigen Multi-species; reactive sera were further complementary tested by adapted commercial indirect immunofluorescence assay **(IFA)** using FITC-conjugated protein G instead of anti-human immunoglobulins. • *Results*:-seroprevalence was 9.66% -all negative sera were determined as negative by both tests, while 13 out of 17 ELISA-positive reactors were also determined as unambiguously positive by the IFA test.	Correlation with other techniques
42)Zhabari Z. and Xhekaj B. (2022). **Serological data suggest the spread of Crimean-Congo hemorrhagic fever virus in domestic animals in Kosovo-a short communication**. Veterinarski arhiv, 92(2), 155-160.	• sera from 285 **cattle**, 87 **sheep**, and 13 **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 17.14%.	
43)Balinandi S. *et al.* (2021). **Serological and molecular study of Crimean-Congo Hemorrhagic Fever Virus in cattle from selected districts in Uganda**. Journal of Virological Methods 290-114075.	• 500 **cattle** sera samples were tested using an in-house Elisa and the ID Screen CCHF Double Antigen Multi-species, in parallel with **IFA**. • *Results*: -seroprevalence was: using the ID Screen: 75% using the in-house ELISA: 12.6%. -IFA results were more comparable to IDVet (K coefficient = 0.88) than to in-house (K coefficient = 0.32). **The ID Screen CCHF Double Antigen Multi-species is useful for detecting anti-CCHFV antibodies in cattle and is well correlated with IFA.**	Correlation with other techniques
44)Blanco-Penedo I. *et al.* (2021). **Seroepidemiology of Crimean-Congo Hemorrhagic Fever Virus (CCHFV) in Cattle across Three Livestock Pastoral Regions in Kenya**. Dairy 2, 425–434.	• seroepidemiological study of the sera of 148 **cattle**, 23 **sheep**, and 17 **goats** using the ID Screen CCHF Double Antigen Multi-species. • *Results*: overall seroprevalence was 31.5%.	
45)Esmaeel S.A. *et al.* (2021). **Seroprevalence of Crimean Congo Hemorrhagic Fever in cows by ELISA in Mosul city**. Iraqi Journal of Veterinary Sciences, Vol. 35, No. 4 (803-807).	• seroprevalence study on **cows** (n=184) using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 21.7%.	

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46)Khbou M.K. *et al*. (2021). **Presence of antibodies to Crimean Congo haemorrhagic fever virus in sheep in Tunisia, North Africa**. Vet Med Sci. 1–7.	• 270 **sheep** were screened using the ID Screen CCHF Double Antigen Multi-species in October 2019, after a peak activity of *Hyalomma* ticks; sera of the same animals taken at different periods between April 2018 and July 2019 were also used to obtain comparative results; positive sera were tested using a **virus neutralization test (VNT).** • *Results:* 3 out of 270 tested sera were seropositive to CCHFV. The seropositive ewe no. 1 showed a high ELISA titer (115%). The seropositive ewes no. 2 and no. 3 showed ELISA titers of 33.60% and 34.15%, respectively. When testing sera collected prior to October 2019, only ewe no. 1 displayed high ELISA titers (>110%). The VNT demonstrated that the serum of ewe no. 1 had a distinct titer as ND50 (50% neutralizing dose) of 1:64. In contrast, the sera of ewes no. 2 and no. 3 showed no such neutralizing effect. ***Because CCHFV viremia is short and of low intensity in livestock, the ID Screen CCHF Double Antigen Multi-species offers the best alternative to detect CCHFV antibodies in sheep and is easy to implement in laboratories with limited resources.* (sic)**	Correlation with other techniques				
47)Obanda V. *et al*. (2021). **Livestock presence influences the seroprevalence of Crimean Congo hemorrhagic fever virus on sympatric wildlife in Kenya**. Vector-Borne and Zoonotic Diseases, 21(10), 809-816.	• serum samples from 191 **buffaloes** and 139 **cattle** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was : -in buffalo : 75.3% -in cattle : 28.1%.					
48)Phonera M. C. *et al.* (2021). **Seroprevalence and Risk Factors of Crimean-Congo Hemorrhagic Fever in Cattle of Smallholder Farmers in Central Malawi.** Pathogens 10, 1613.	• 416 sera **cattle** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 46.9%.					

49)Zouaghi K. *et al.* (2021). **First Serological Evidence of Crimean-Congo Hemorrhagic Fever Virus and Rift Valley Fever Virus in Ruminants in Tunisia.** Pathogens, 10, 769.	• 879 serum samples from **cattle, sheep, and goats** were tested for CCHFV antibodies with the ID Screen CCHFDA Multi-species and **IFA**. • *Results*: -overall seroprevalence of CCHFV antibodies was 8.6% -among 97 sera detected positive by CCHFV ELISA, 76 samples were confirmed positive by IFA; in contrast, all inconclusive ELISA samples (n = 6) were tested negative by IFA.	Correlation with other techniques

CAMELIDS

50)Bedjaoui S. (2025). **Seroprevalence of flavivirus and Crimean-Congo hemorrhagic fever virus in dromedaries from Algeria**. Poster presented at Medical Biodefense Conference, Munich, Germany,8-10 april 2025.	• 94 **dromedary** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 88.3%.	
51)Sheek-Hussein M. *et al*. (2025). **Crimean–Congo Hemorrhagic Fever Virus Infections in Slaughtered Camels and Abattoir Workers in the United Arab Emirates**. Transboundary and Emerging Diseases, 2025(1), 3409106.	• 393 **camel** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 65.1%.	
52)Adamu A.M. *et al*. (2024). **Investigating Crimean–Congo haemorrhagic fever virus seropositivity in camels and human behavioural risks in an abattoir in Nigeria**. Epidemiology and Infection, 152, e29, 1–8.	• 184 **camel** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 97%.	
53)Guidoum K.A. *et al*. (2023). **Crimean-Congo hemorrhagic fever virus seropositivity among dromedary camels, Algeria, 2020–2021**. Emerging Infectious Diseases, 29(12), 2546.	• 294 sera from **dromedaries**, of which 215 were from 23 different herds, and 79 samples from an abattoir were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was at animal-level: 75.5% at herd-level: 95.7%.	

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54)Lado S. *et al*. (2022). **Crimean–Congo Hemorrhagic Fever Virus Past Infections Are Associated with Two Innate Immune Response Candidate Genes in Dromedaries.** Cells, 11, 8**.**	• sera from 121 **dromedaries** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 70%.					
55)Camp J.V. *et al*. (2021). **Association of Dromedary Camels and Camel Ticks with Reassortant Crimean-Congo Hemorrhagic Fever Virus, United Arab Emirates**. Emerging Infectious Diseases Vol. 27, No. 9.	• sera from 90 **dromedary camels**, 51 **cattle**, 45 **goats**, and 55 **sheep** using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was: -in camels: 80% -in cattle: 13.7% -in goats:2.2% -in sheep: 7.3.					
56)Wernery U *et al*. (2021). **Crimean-Congo Haemorrhagic Fever: A Serological Survey In Dromedary Camels**. Journal of Camel Practice and Research, Vol 28N°1, p75-77.	• 173 **camel** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 94%.					
57)Bouaicha F. *et al*. (2020). **Epidemiological investigation of Crimean-Congo haemorrhagic fever virus infection among the one-humped camels (*Camelus dromedarius*) in southern Tunisia.** Ticks and Tick-borne Diseases, Vol 12, Issue 1.	• 273 **dromedaries** were tested in parallel with the ID Screen CCHF Double Antigen Multi-species and a camel-specific indirect in-house CCHFV ELISA; when the results of the two serological tests were concordant, the result was admitted; in cases of inconsistent or inconclusive findings, an indirect immune-fluorescence assay was used as a confirmatory test. • *Results:* -seroprevalence was 87% -results for the in-house ELISA and the ID Screen CCHF Double Antigen Multi-species showed a substantial concordance (K = 0.74).	**Correlation with other techniques**				
58)Zohaib A. *et al*. (2020). **Crimean-Congo Hemorrhagic Fever Virus in Humans and Livestock, Pakistan, 2015–2017.**Emerging Infectious Diseases 26 (4).	• 1838 sera from domestic animals (311 **buffaloes**, 480 **camels**, 183 **cattle**, 440 **goats**, and 424 **sheep**) were tested with the ID Screen CCHF Double Antigen Multi-species in parallel with 1872 human sera tested with an ELISA for human samples and IFA. • *Results*: -overall seroprevalence was 36.2% -seroprevalence in camels was 56.7%.					

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DOGS, CATS, AND HORSES

59)de Villiers L. *et al*. (2025). **Serological evidence of Crimean-Congo haemorrhagic fever in domestic animals from eight regions of Namibia**. Acta Tropica, 262, 107524.	• serum samples from 374 **dogs** and 238 **cats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results: seroprevalence was:* *-in dogs : 11.5%* *- in cats: 1.68%.*
60)Bedjaoui S. *et al*. (2024). **Seroprevalence of Crimean-Congo Hemorrhagic Fever and flavivirus infections among ethiopian domestic animals.** Poster presented at 9th International Conference on Emerging Zoonoses at: Palermo,Italia, 9-12 June 2024.	• sera from 486 domestic animals (**dogs, cats, bovine, donkeys, sheep, horses, and goats**) were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 2.26%.
61)Vila M. *et al.* (2023). **Zoonotic findings of *Hyalomma marginatum* in northwestern Spain: horse serological response and human captures**. Poster presented at the EVPC meeting, 29-30 june 2023, Maison-Alfort, France.	• 182 **horse** sera were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: Seroprevalence was 1.1%.
62)Atim S.A. *et al.* (2022). **Risk factors for Crimean-Congo Haemorrhagic Fever (CCHF) virus exposure in farming communities in Uganda**. Journal of Infection, 85(6), 693-701.	• blood samples from 666 **cattle**, 549 **goats**, and 32 **dogs** were tested using the ID Screen CCHF Double Antigen Multi-species. 800 human sera were tested using another commercial assay. • *Results*: CCHF seropositivity was 91.8 % in cattle, 75.2% in goats, and 56.22% in dogs. Overall seroprevalence in humans was 27.6%. **This study highlights the need for enhanced surveillance of CCHF in cattle across countries where living patients with febrile illness.**
63)Mangombi J.B. *et al*. (2020). **Seroprevalence of Crimean-Congo Hemorrhagic Fever in Domesticated Animals in Northwestern Senegal.** Vector-Borne And Zoonotic Diseases DOI: 20. 10.1089/vbz.2019.2592.	• The ID Screen CCHF Double Antigen Multi-species was tested on different species (n= 283). • *Results*: seroprevalence was: -in horses: 70.3% -in dogs: 18.2% -in cattle: 57.1% -in sheep: 22.1% -in donkeys: 17.2% -in goats: 6.9%.

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SUIDS

64)Bost C. *et al.* (2024). **Approaching the complexity of Crimean-Congo hemorrhagic fever virus serology: A study in swine**. Journal of Virological Methods, 326, 114915.	• 746 swine sera (518 **pigs** and 267 **wild boar** from an area with endemic circulation of CCHF in wildlife and 228 pigs from a CCHF-free area) were tested using the ID Screen CCHF Double Antigen Multi-species and an in-house swine-specific in-house ELISA; a randomly selected subset of serum samples from CCHF-endemic area that were reactive in both ELISAs were also tested using immunofluorescence assay (**IFA**) and virus neutralization test (**VNT**) • *Results*: -strong correlation between the 2 tests (Phi coefficient: 67%) -IFA and VNT reactive sera were found with observed discrepancies between the tests, *probably resulting from different sensitivities and antibody cross-reactivities or suggesting that immune response to CCHFV in porcine host is not necessarily associated with eliciting neutralizing antibodies* (sic).	**Correlation with other techniques**
65)Frías M. *et al.* (2024). **Epidemiologic survey of crimean-Congo hemorrhagic fever virus in suids, Spain**. Emerging Infectious Diseases, 30(5), 984.	• serum samples from 518 suids (267 **wild boars** and 251 **Iberian pigs**) were tested using the ID Screen CCHF Double Antigen Multi-species an in-house indirect ELISA based on the CCHFV Kosovo Hoti strain N; samples were seropositive if antibodies were detected by both ELISAs. • *Results*: seroprevalence was -in wild boars: 39.7% - in Iberian pigs: 2.8%.	**Correlation with other techniques**

RODENTS

66)Omoga D.C.A. *et al.* (2023). **Transmission Dynamics of Crimean–Congo Haemorrhagic Fever Virus (CCHFV): Evidence of Circulation in Humans, Livestock, and Rodents in Diverse Ecologies in Kenya**. Viruses, 15, 1891.	• serum samples from 51 **donkeys**, 310 **cattle**, 295 **sheep**, 295 **goats** and 93 **rodents** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results:* seroprevalence was -in cattle: 14.1% -in sheep: 9.8% -in goats: 8.1% -in donkeys: 31.4% -in rodents: 6.5%.

WILDLIFE

67)Baptista C. *et al*. (2025). **Crimean-Congo Hemorrhagic Fever Virus Circulation in Wild European Rabbits, Portugal, 2018– 2023**. Emerging Infectious Diseases, 31(10), 2048.	• serum samples from 667 **European rabbits** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results:* seroprevalence was 0.6%.
68)Baz-Flores Sara *et al*. (2024). **Mapping the risk of exposure to Crimean-Congo haemorrhagic fever virus in the Iberian Peninsula using Eurasian wild boar (*Sus scrofa*) as a model**. Ticks and Tick-borne Diseases, vol. 15, no 1, p. 102281.	• 5291 sera from **wild boars** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 19.4%.
69)Castro-Scholten S. *et al*. (2024). **Absence of Crimean-Congo hemorrhagic fever virus in wild lagomorphs and their ticks in Spanish Mediterranean ecosystems**. Veterinary Microbiology, 298, 110217.	• serum samples from 473 **European wild rabbits** and 162 **Iberian hares** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: none of the 635 lagomorphs tested had anti-CCHFV antibodies.

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70)Cevidanes A. *et al*. (2024). **Exposure to Crimean-Congo Hemorrhagic Fever Virus in Wild Ungulates in the Basque Country, Northern Iberian Peninsula**. Transboundary and Emerging Diseases, 2024(1), 8553577.	• serum samples from 1190 **wild boars**, 36 **red deer**, and 36 **roe deer** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in wild boars: 1.76% -in red deer: 22.22% -in roe deer: 8.33%.
71)Carrera-Faja L. *et al*. (2023). **Dynamics of Crimean-Congo hemorrhagic fever virus in two wild ungulate hosts during a disease-induced population collapse**. One Health, 17, 100622.	• serum samples from **wild boars** (n =288) and **Iberian ibexes** (n= 88) collected between 2013 and 2022 were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: throughout the study period: -100% of the Iberian ibexes tested positive -in wild boars, the seroprevalence gradually declined throughout hunting seasons (66.7% in 2016–2017 to 4.2% in 2021–2022).
72)Carrera-Faja L. *et al*. (2022). **Evidence of prolonged Crimean-Congo hemorrhagic fever virus endemicity by retrospective serosurvey, eastern Spain**. Emerging Infectious Diseases, 28(5), 1031.	• serum samples from 332 **wild boars**, 126 **Iberian ibexes**, and 48 **mouflons** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in Iberian ibex: 96% -in mouflon: 100 % -in wild boars: 15.5%.
73)Cuadrado-Matías R. *et al.* (2022). **Determinants of Crimean–Congo haemorrhagic fever virus exposure dynamics in Mediterranean environments**. Transboundary and Emerging Diseases, 69(6), 3571-3581.	• serum samples from 453 **wild boars**and 527 **red deer** and were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results:* seroprevalence was -in wild boars: 40.6% -in red deer: 76.1%.
74)Cuadrado-Matias R. *et al.* (2021). **The spatiotemporal dynamics of Crimean-Congo haemorrhagic fever virus in enzootic Iberian scenarios**. Poster presented at the Virtual 69th WDA /14th EWDA 2021 Joint Conference Cuenca, Spain.	• 6178 sera from **red deer** were tested with the ID Screen CCHF Double Antigen Multi-species in Spain. • *Results*: seroprevalence was very high in the southern half of mainland Spain (72.0%-87.1%) whereas it was lower in central (43.6%) and northern (30.6%) areas of the country.

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75)Espunyes J. *et al*. (2021). **Hotspot of Crimean-Congo Hemorrhagic Fever Virus Seropositivity in Wildlife, Northeastern Spain**. Emerging Infectious Diseases Vol. 27, No. 9.	• 532 sera from **various wildlife species** (174 **red deer**, 84 **Iberian ibexes**, 79 **roe deer**, 35 **European rabbits**, 156 **wild boars**, and 4 **fallow deer**) using the ID Screen CCHF Double Antigen Multi-species. • *Results*: of 532 samples tested, CCHFV antibodies were detected in 72 animals, including **Iberian ibexes** (66/84), **roe deer** (1/79), and **wild boar** (5/156).
76)Peralbo-Moreno A. *et al*. (2021). **Spatial modelling of *Hyalomma lusitanicum* ticks shape Crimean-Congo haemorrhagic fever virus exposure in Doñana National Park, Spain**. Oral presentation at CUENCA 2021, August 31 to September 2, Spain.	• sera from 435 **red deer** were analyzed using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was 74.3%.

CATTLE AND WILDLIFE

77)Bernard C. *et al*. (2025). **First detection of Crimean Congo Hemorrhagic Fever antibodies in cattle and wildlife of southern continental France: Investigation of explanatory factors**. PLoS One 20(9): e0331875.	• serum samples from 8609 **cattle** and 2182 **wildlife** (**wild boar, roe deer, red deer, mouflon, fox**) were tested using the ID Screen CCHF Double Antigen Multi-species. Confirmation of positive samples were tested using pseudo-plaque reduction neutralization tests (**PPRNT**). • *Results*: -seroprevalence was 2.04% in cattle and 2.25% in wildlife -39 out of the 59 ELISA-positive sera from cattle and 39 out of the 40 ELISA-positive sera from wildlife were confirmed with PPRNT.	Correlation with other techniques
78)Dos Santos F.A *et al*. (2025). **Evidence of Crimean–Congo hemorrhagic fever virus in livestock and wildlife in Northeastern Portugal**. Scientific Reports, 15(1), 25142.	• serum samples from 94 **cattle**, 30 **sheep**, 4 **goats** and 10 **red deer** were tested using the ID Screen CCHF Double Antigen Multi-species. Indirect immunofluorescence assays (**IFA**) further validated the ELISA results. • *Results*: seroprevalence was 38.3% in cattle and 60% in red deer; only 1 sheep and none of the goats tested positive -9 ELISA positive bovine samples were tested by IFA, giving 88% concordance between the 2 tests -4 ELISA positive red deer samples were tested by IFA, giving 50% concordance between the 2 tests. *This discrepancy may be explained by the lower sensitivity of IFA test* (sic).	Correlation with other techniques

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79)Yessinou R.E. *et al.* (2025). **Seroprevalence and Risk Factors of Crimean–Congo Hemorrhagic Fever Exposure in Wild and Domestic Animals in Benin**. Viruses, 17(3), 387.	• 366 serum collected from 254 **wild animals (giant rat, squirrel, hare, grasscutter, crow, bat, birds, antelope, monkey, cattle egret)** and 112 from **domestic animals (cattle, horses, pigeons)** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: -wild animals: seroprevalence was 1.18% (only squirrels, hares and giant rats tested positive) -domestic animals: seroprevalence was 41.98% in cattle, 16.67% in horses and no positive samples were reported in pigeons.					

HUMANS

80)Gasparine M. *et al.* (2025). **First report of Crimean-Congo hemorrhagic fever virus exposure in human and livestock populations, Center Region, Cameroon**.Front. Cell. Infect. Microbiol. 15:1578518.	• serum samples from 465 **humans**, 148 **goats** and **386 cattle** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -**in humans**: 1.9% -in cattle: 10.9% -in goats: 3.38%.					
81)Kiwan P. *et al.* (2025). **Serological evaluation of Crimean-Congo Hemorrhagic fever in humans with High-Risk professional exposure and in residual sera collected in 2022-2023 across Corsica (France)**. One Health, 20, 101020.	• 2 groups of human sera samples: 2514 **anonymized sera from medical biology laboratories (RS)** and 201 **sera from high-risk individuals** were tested using the ID Screen CCHF Double Antigen Multi-species. ELISA positive samples underwent **neutrlysing antibody testing**. • *Results*: seroprevalence was: -**in RS**: 0.08% (n=2, no neutralizing antibodies in these samples) -**in high-risk group**: 0.5% (n=1, also positive for neutralizing antibodies).	**Correlation with other techniques**				
82)Mohammed R.I. *et al.* (2025). **Seroprevalence of Crimean-Congo Hemorrhagic Fever Among Cows and Their Owners in Nineveh Province, Iraq**. Egyptian Journal of Veterinary Sciences, 56(8), 1667-1672.	• serum samples from 124 **cows** and 124 **owners** of these cows were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in cattle: 48.4% -**in owners**: 4.8%.					

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83)Malonga G.A. *et al.* (2024). **Seroprevalence of Crimean-Congo hemorrhagic fever virus among people living with HIV in Brazzaville, Congo and among blood donors in Bamako, Mali**. Ticks and Tick-borne Diseases, 15(1), 102276.	• retrospective serological survey conducted on 352 sera from **people living with HIV (PLWH)** and 229 sera from **healthy blood donors** using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -**in PLWH**: 0.6% -**in blood donors**: 1.75%.
84)Mukhaye E. *et al*. (2024). **Exposure patterns and the risk factors of Crimean Congo hemorrhagic fever virus amongst humans, livestock and selected wild animals at the human/livestock/wildlife interface in Isiolo County, upper eastern Kenya**. PLoS Negl Trop Dis 18(9): e0012083.	• serum samples from 580 **humans**, 2137 livestock (**camels, cattle, goats and sheep**)and 87 wild animals (**giraffe, buffaloes, zebra, waterbuck, oryx, impala and warthog**) were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -**in humans**: 7.2% -in cattle: 53.9% -in goats: 11.6% -in sheep: 8.6% -in camels : 89.7% -in wild animals: 41%.
85)Simo F.B.N. *et al*. (2024). **Crimean Congo hemorrhagic fever virus exposure among febrile patients, cattle herders, and cattle herds in Cameroon**. Acta Tropica, 260, 107432.	• serum samples from 423 **cattle**, 28 **cattle herders**, and 60 **febrile patients** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -in cattle: 27.4% -**in cattle herders**: 17.8% -**in febrile patients**: 8.3%.
86)El Ghassem A. *et al*. (2023). **Risk factors associated with Crimean-Congo hemorrhagic fever virus circulation among human, livestock and ticks in Mauritania through a one health retrospective study**. BMC Infectious Diseases, 23(1), 764.	• serum samples from 263 **humans** and 1380 domestic animals (**sheep, goats, dromedaries and cattle**) were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -**in humans**: 11.8% -in sheep: 18.1% -in goats: 9% -in dromaderies: 90.5% -in cattle: 74.6%.

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87)Hughes E.C. *et al*. (2023). **Patterns of Crimean-Congo haemorrhagic fever virus seroprevalence in human and livestock populations in northern Tanzania**. medRxiv, 2023-08.	• serum samples from 351 **humans** and 7456 livestock (**cattle, goats and sheep**) were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -**in humans**: 15.1% -in cattle: 49.6% -in goats: 33.8% -in sheep: 27.8%.					
88)Mostafa A.H. *et al*. (2023). **Incidence and transmission dynamics of Crimean-Congo Hemorrhagic Fever Virus (CCHFv) in slaughterhouse environments: ELISA based detection and risk assessment**. Microbial Biosystems, 8(1), 43-48.	• serum samples from 61 **humans**, 279 **sheep** and 130 **goats** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was -**in humans**: 3.3% -in sheep: 21.9% -in goats: 13.8%.					
89)Frías M. *et al*. (2022). **The spatial pattern of human exposure to Crimean–Congo haemorrhagic fever virus is not consistent with red deer-based risk predictions**. Transboundary and Emerging Diseases, 1–7.	• a cross-sectional study to test the exposure pattern of the **human population** to CCHFV: sera of 1384 donors from different risk gradients were analyzed using the ID Screen CCHF Double Antigen Multi-species. • *Results*: none of the samples reacted positively indicating a seroprevalence of 0%. **This study confirms the excellent specificity of the ID Screen CCHFDA Multi-species for human samples.**					Data specificity
90)Matthews J. M. (2022). **Sero-epidemiological investigation of Crimean-Congo hemorrhagic fever virus infection in humans and livestock in West Africa.** (Doctoral dissertation).	• **486 sera from humans**, 544 sera from **goats**, 474 sera from **sheep**, and 399 sera from **cattle** were tested using the ID Screen CCHF Double Antigen Multi-species. • *Results*: seroprevalence was: -**in humans**: 1.65% -in cattle: 59.9% -in sheep: 18.8% -in goats: 9%.					

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91)Negredo A. *et al*. (2021). **Retrospective Identification of Early Autochthonous Case of Crimean-Congo Hemorrhagic Fever, Spain, 2013.** Emerging Infectious Diseases Vol. 27, No. 6.	• retrospective identification of a **human case** dating back to 2013. The case strongly suggested CCHF infection. In 2020, a new serum sample was collected and tested by the ID Screen CCHFDA Multi-species and a commercial indirect immunofluorescence test for CCHFV-GPC and CCHFV-N. Retrospectively, stored samples collected 10 days after symptom onset were tested by PCR and **IFA**. • *Results:* The serum sample collected in 2020 tested positive for antibodies to CCHFV with the ID Screen CCHFDA Multi-species further confirmed by IFA yielding positive results to both GPC and N antigens. In a sample collected in 2013, the CCHV genome was detected by PCR and IFA revealed CCHFV-N–specific IgG and IgM. **The ID Screen CCHFDA Multi-species is able to detect CCHFV antibodies in human samples, in correlation with commercial IFA for the detection of CCHFV antibodies in human samples.**	Correlation with other techniques