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**A novel double-antigen sandwich ELISA for the species-independent detection of
Crimean-Congo hemorrhagic fever virus-specific antibodies**

Miriam A. Sas ^a, Loic Comtet ^b, Fabien Donnet ^b, Marc Mertens ^a, Zati Vatansever ^c, Noel Tordo ^d, Philippe Pourquier ^b, Martin H. Groschup ^{a*}

^a Institute of Novel and Emerging Infectious Diseases, Friedrich-Loeffler-Institut, Federal Research Institute for Animal Health, Greifswald-Isle of Riems, Germany,

^b IDvet, Grabels, France,

^c Faculty of Veterinary Medicine, Kafkas University, Kars, Turkey,

^d Unit Antiviral Strategies, Institut Pasteur, Paris, France

* martin.groschup@fli.de

Abstract

Crimean-Congo hemorrhagic fever (CCHF) is a tick-borne disease in humans caused by the CCHF virus (CCHFV). The detection of anti-CCHFV antibodies in animals is used to reveal infection risk areas. Therefore a simple, quick and reliable multispecies assay for the detection of CCHFV-specific antibodies is needed. This work presents the development and validation of a novel CCHF double-antigen ELISA for the detection of anti-CCHFV nucleoprotein antibodies. The test requires 30µl of serum, and results are obtained within 90 minutes. As the ELISA is based on recombinant N-protein of the IbAr10200 virus, it can be run under standard biosafety conditions. For assay validation, sera from 95 cattle and 176 small ruminants from CCHF-endemic regions (origin: Albania, Cameroon, Kosovo, Former Yugoslav Republic of Macedonia, Mauritania, Pakistan, Turkey) served as a positive

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