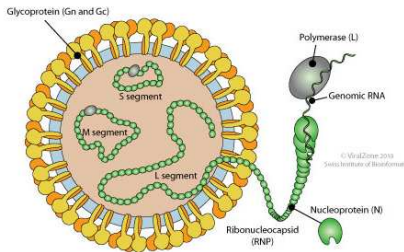


Product Specification Sheet

Crimean-Congo hemorrhagic fever virus (CCHFV) S protein or nucleoprotein Antibodies

Cat# CCHFV11-S	Rabbit Anti-CCCHF nucleoprotein, full length Antiserum	Size: 100 ul
Cat# CCHFV11-C	Recombinant CCCHF nucleoprotein protein control for WB	Size: 100 ul



Crimean–Congo hemorrhagic fever virus (CCHFV) is a widespread tick-borne viral disease, a zoonosis of domestic animals and wild animals, that may affect humans. The

pathogenic virus, especially common in East and West Africa, is a member of the Bunyaviridae family of RNA viruses. Clinical disease is rare in infected mammals, but commonly severe in infected humans, with a 30% mortality rate. Outbreaks of illness are usually attributable to handling infected animals or people. The virus is a member of the genus Nairovirus, family Bunyviridae. The genome is circular, ambisense RNA in three parts - Small (S), Middle (M) and Large (L). The L segment encodes the RNA polymerase; the M segment encodes the envelope proteins (Gc and Gn); and the S segment encodes the nucleocapsid protein (NP). The envelope protein is initially translated as a glycoprotein precursor which is then cleaved into two smaller proteins. Based on the sequence data seven genotypes have been recognised: Africa 1 (Senegal), Africa 2 (Democratic Republic of the Congo and South Africa), Africa 3 (southern and western Africa), Europe 1 (Albania, Bulgaria, Kosovo, Russia and Turkey), Europe 2 (Greece), Asia 1 (the Middle East, Iran and Pakistan) and Asia 2 (China, Kazakhstan, Tajikistan and Uzbekistan). The causative organism is found in Asia, Eastern Europe, the Middle East, a belt across central Africa and South Africa and Madagascar. The main environmental reservoir for the virus is small mammals (particularly European hare, Middle-African hedgehogs and multi-mammate rats). Ticks carry the virus to domestic animal stock. Sheep, goats and cattle develop high titers of virus in blood, but tend not to fall ill. Birds are generally resistant with the exception of ostriches. Tick species that have been identified as infected with this virus include Argas reflexus, Hyalomma anatolicum, Hyalomma detritum, Hyalomma marginatum marginatum and Rhipicephalus sanguineus.

CCHFV nucleoprotein (482-aa) has been used in diagnostic ELISA to detect antibodies in humans and animals. ADI has developed the first commercial ELISA kit to detect antibodies to Congo virus. Purified recombinant protein and rabbit antibodies to the CCHFV NP are also available for research studies.

Source of Antigen, Antibodies, and positive controls

Antigen	Recombinant purified CCHFV nucleoprotein #CCHFV15-R-10
Ab Host/type	Rabbit, Poly antiserum # CCHFV11-S
2-Ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

CCHFV nucleoprotein (482-aa full length) was expressed in E. coli as his-tag protein and purified (>96%, ~55 Kda). For Western blot +ve control, purified protein (Cat # CCHFV11-C) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of CCHFV11-C for good visibility with antibody Cat # CCHFV11-S. Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should re-dissolve by warming before taking it from the stock.

Stability: 6-12 months at -20oC or below.

Form & Storage of Antibodies/Peptide Control

Antiserum un purified

100 ul/vial solution lyophilized powder
contains 0.05% sodium azide

Reconstitute powder 100 ul PBS

Recommended Usage

Western Blotting 1:500-1:2000 of primary antibody using Chemiluminescence technique). Recombinant protein is ~55 kda.

ELISA (1:1000-1:10, 000; using 50-100 ng of control protein/well).

Histochemistry & Immunofluorescence: **not tested.** We recommend a antibody testing at 5-20 ug/ml.

General References: Burney MI (1976) Am. J. Trop. Med. Hyg. 29:941–947; Burt FJ (1994) Epidemiol. Infect. 113:551–562; Johnson BK (1983) Trans. R. Soc. Trop. Med. ; Hyg. 77:731–733; Logan TM (1993) J. Virol. Methods 42:33–44; Mariott AC (1994) J. Gen. Virol. 75:2157–2161.; Saijo M (2002) J. Clin. Microbiol. 40, 1587-1591; Xiao X (2011) BBRC 411, 253-258; Casals J (1969) Proc Soc Exp Biol Med 131 (1): 233–6; Ergonul O (1991) Lancet Infect. Dis. 6, 203-214

This product is for in vitro research use only.

Related material available from ADI

Catalog#	Prod Description
CCHFV15-R-10	Recombinant (E.coli) Crimean-Congo hemorrhagic fever virus nucleoprotein protein (full length, his-tag, 55 kda), purified
CCHFV11-C	Recombinant (E.coli) Crimean-Congo hemorrhagic fever virus nucleoprotein protein (CCHFV, full length, his-tag, 55 kda) control for WB
CCHFV11-S	Anti-Crimean-Congo hemorrhagic fever virus nucleoprotein protein (CCHFV-NP, full length) antiserum
AE-320400-1	Mouse Crimean-Congo hemorrhagic fever virus (CCHFV) IgG ELISA Kit, 96 tests
AE-320410-1	Mouse Crimean-Congo hemorrhagic fever virus (CCHFV) IgM ELISA Kit, 96 tests
AE-320420-1	Human Crimean-Congo hemorrhagic fever virus (CCHFV) IgG ELISA Kit, 96 tests
AE-320430-1	Human Crimean-Congo hemorrhagic fever virus (CCHFV) IgM ELISA Kit, 96 tests
CCHFV11-S-Crimean-Congo-antiserum	151201SV

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