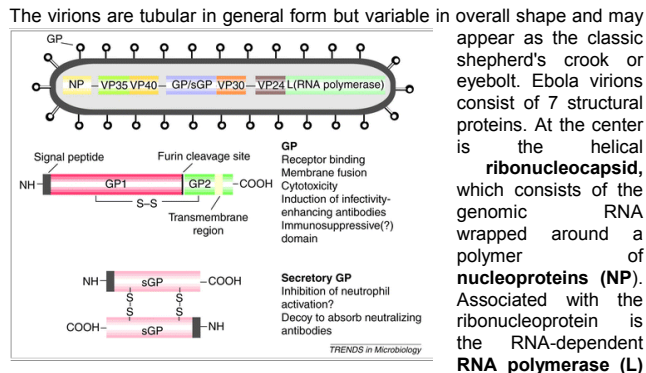


Product Specification Sheet

Recombinant Sudan-Ebola virus nucleoprotein

□ Cat # SVNP27-R-10	Recombinant (E.coli) Sudan Ebola virus nucleoprotein (Uganda, 630-738aa, his-tag, >95%)	SIZE: 10 ug
□ Cat # SVNP27-R-100	Recombinant (E.coli) Sudan Ebola virus nucleoprotein (Uganda, 630-738aa, his-tag, >95%)	SIZE: 100 ug

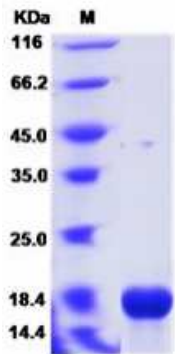
Ebola virus (EBOV, formerly Zaire ebolavirus) causes severe disease in humans and in nonhuman primates in the form of viral hemorrhagic fever.. Zaire ebolavirus is a virological taxon included in the genus Ebolavirus, family Filoviridae, order Mononegavirales. The species has a single virus member, Ebola virus (EBOV). **Ebolavirus species Zaire (ZEBOV)** causes highly lethal hemorrhagic fever, resulting in the death of **90%** of patients within days. Most information on immune responses to ZEBOV comes from in vitro studies and animal models. Ebola Zaire attacks every organ and tissue in the human body except skeletal muscle and bone. Ebola is classified as a **Level 4** pathogen (higher than AIDS) with a 2 to 21 day (7 to 14 days average) incubation period. There are currently four known strains of Ebola: **Zaire, Sudan, Reston and Tai**. All cause illness in sub-human primates. Only Ebola Reston does not cause illness in humans. The mortality rate of Ebola victims is between 60% and 90%; with Ebola Sudan at 60% and Ebola Zaire at 90%.



The virions are tubular in general form but variable in overall shape and may appear as the classic shepherd's crook or eyebolt. Ebola virions consist of 7 structural proteins. At the center is the helical **ribonucleocapsid**, which consists of the genomic RNA wrapped around a polymer of **nucleoproteins (NP)**. Associated with the ribonucleoprotein is the RNA-dependent **RNA polymerase (L)** with the **polymerase cofactor (VP35)** and a **transcription activator (VP30)**. The ribonucleoprotein is embedded in a matrix, formed by the major (VP40) and minor (VP24) matrix proteins. They are surrounded by a **lipid membrane** derived from the host cell membrane. The membrane anchors a glycoprotein (GP1,2) that projects 7 to 10 nm spikes away from its surface. While nearly identical to **Marburg virions** in structure, ebola virions are antigenically distinct.

The most common diagnostic methods are RT-PCR in conjunction with antigen-capture ELISA which can be performed in field or mobile hospitals and laboratories. There are currently no FDA-approved vaccines for the prevention of EVD. The most promising ones are DNA vaccines or are based on adenoviruses, vesicular **stomatitis Indiana virus (VSIV)** or **filovirus-like particles (VLPs)** as all of these candidates could protect nonhuman primates from Ebola virus-induced disease. DNA vaccines, adenovirus-based vaccines, and VSIV-based vaccines have entered clinical trials.

Source of Antigen



Recombinant Sudan Ebola virus glycoprotein (cat# **SVNP27-R-10**, Uganda, protein accession YP_138523.1) was expressed in E.coli as fusion protein (630-738aa, >95%, ~14 KDa).

Purified protein is supplied in PBS [pH 7.4], supplemented with 5-8% trehalose.

It is suitable for ELISA, Western or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

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

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting: load 50-200 ng/well.

ELISA (10-100 ng antigen/well).

Histochemistry & Immunofluorescence: not tested.

Specificity & Cross-reactivity

Sudan Ebola NP protein is significantly conserved in various Ebola serotypes: Bundibugyo (75%), D'Ivoire (75%), Zaire (67%), Reston (69%). EVNP11-C, western blot protein control is available for control studies.

References: Thomas W (2010) Archives of Virology 155 (12): 2083–103. Taylor D (2010) BMC Evolutionary Biology 10: 193. Feldmann H (2005) . A. Virus Taxonomy—Eighth Report of the International Committee on Taxonomy of Viruses. 645–653.

*This product is for In vitro research use only.

http://www.4adi.com/objects/catalog/product/extras/Ebola_Marburg_Vaccines_ELISA_Flr.pdf

- EVNP11-C Recombinant Zaire-Ebola virus nucleoprotein (Mayinga EBOV NP) protein control for Western
- EVNP11-S Rabbit Anti-Zaire-Ebola virus nucleoprotein (Mayinga EBOV NP) protein antiserum
- EVNP13-A Rabbit Anti-Zaire Ebola virus nucleoprotein (EBOV NP, 1-739/DNA vaccine) IgG
- EVNP13-C Recombinant (E. coli) Zaire-Ebola virus nucleoprotein (Mayinga EBOV NP) protein control for Western
- EVNP15-R-10 Recombinant (E.coli) Zaire Ebola virus nucleoprotein (EBOV NP) (full length, his-tag, 82 kda), purified
- EVNP16-R-10 Recombinant (E.coli) Zaire Ebola virus nucleoprotein (EBOV NP) (H.sapiens-wt/GIN/2014/Kissidougou-C15, 630-739aa, his-tag, >95%)
- SVNP27-R-10 Recombinant (E.coli) Sudan Ebola virus nucleoprotein (EBOV NP) (Uganda, 630-738aa, his-tag, >95%)

- AE-320500-1 Mouse Anti-Zaire Ebola virus Nucleoprotein (NP) IgG ELISA Kit, 96 tests, Quantitative
- AE-320510-1 Mouse Anti-Zaire Ebola virus Nucleoprotein (NP) IgM ELISA Kit, 96 tests, Quantitative
- AE-320520-1 Human Anti-Zaire Ebola virus Nucleoprotein (NP) IgG ELISA Kit, 96 tests, Quantitative
- AE-320530-1 Human Anti-Zaire Ebola virus Nucleoprotein (NP) IgM ELISA Kit, 96 tests, Quantitative
- AE-320540-1 Rabbit Anti-Zaire Ebola virus Nucleoprotein (NP) IgG ELISA Kit, 96 tests, Quantitative
- AE-320550-1 Monkey/Chimp Anti-Zaire Ebola virus Nucleoprotein (NP) IgG ELISA Kit, 96 tests, Quantitative
- AE-320560-1 Monkey/Chimp Anti-Zaire Ebola virus Nucleoprotein (NP) IgM ELISA Kit, 96 tests, Quantitative

SVNP27-R-10

141218P

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA), Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444

Email: customerservice@lifetechindia.com Website: www.lifetechindia.com