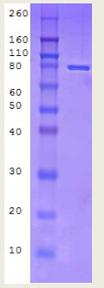


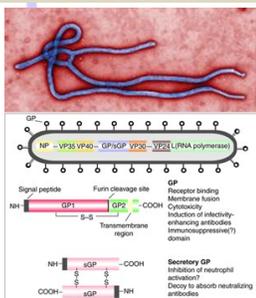
Zaire-Ebola Virus Nucleoprotein (EBOV NP) IgG (# AE-320520-1) and IgM (AE-320530-1) ELISA Kits

This kit measures human IgG or IgM class antibodies against Zaire-Ebola Virus nucleoprotein (NP), a major antigenic component of the virus, in human serum or plasma. This kit will be useful to determine the antibodies to Ebola virus NP as a result of vaccination or in response to natural infection. This kit has not been validated with human Ebola virus and it is not recommended to diagnose the disease. The kit contains recombinant proteins and antibodies and no virus-derived or human samples are present in the kit. For in vitro research use only.

	<h3>ELISA Kit Features</h3> <ul style="list-style-type: none"> Recombinant (<i>E. coli</i>) Purified Ebola NP pre-coated, stabilized, ready-to-use 96-well strip plate Anti-Zaire-Ebola NP IgG (or IgM) –ve and +ve positive controls. Sample: Serum or plasma; size 100 ul (diluted). 110 min assay minutes 3 incubation steps Contains all necessary reagents. Shelf life ~12 months. Sample values are calculated from the standard curve. 	<h3>Assay Procedure:</h3> Allow all reagents to reach room temperature. <p>Step 1. Pipet 100 ul each of pre-diluted stds, controls and samples Mix gently and incubate at RT for 60 mins.</p> <p>Step 2. Aspirate and Wash 3X Add 100 ul of enzyme HRP conjugate (anti-human IgG or IgM), cover and incubate at RT for 30 mins.</p> <p>Step 3. Aspirate and Wash 4. Add 100 ul TMB substrate solution to all wells, mix gently, and incubate at RT for 15 mins.</p> <p>Step 4. Pipet 100 ul of stop solution into each well and mix gently (blue color turns yellow). Measure absorbance at 450 nm. Results are expressed as –ve or +ve or in (U/ml).</p> <p>Detailed manual will be provided with the kit.</p>
<p>Zaire EBOV NP (82 kda) protein used in the kit is conserved has the following sequence conservation in various ebola strains: Bundibugyo (75%), Cote d' Ivoire (69%), Reston (69%), and Sudan (67%) Ebola viruses. The protein also has some similarity with Marburg viruses: Ravn (54%), Angola (53%), Leiden, DRC1999, (53%), Victoria, Musoke (38%).</p>		

General information

Ebola virus (EBOV) causes severe disease in humans and in nonhuman primates in the form of viral hemorrhagic fever. The name Ebola virus is derived from the Ebola River (a river that was at first thought to be in close proximity to the area in Zaire where the first recorded Ebola virus disease outbreak occurred) and the taxonomic suffix virus. The species has a single virus member, Ebola virus (EBOV). Ebola virus species Zaire (ZEBOV) causes highly lethal hemorrhagic fever, resulting in the death of 90% of patients within days. 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 Ebola virions are tubular in general form but variable in overall shape and may appear as the classic shepherd's crook or eyebolt, as a U or a 6, or coiled, circular, or branched. Ebola virions consist of seven 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. These particles 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. Being acellular, viruses do not grow through cell division; instead, they use the machinery and metabolism of a host cell to produce multiple copies of themselves, and they assemble in the cell. While nearly identical to Marburg virions in structure, ebola virions are antigenically distinct. **Ebola virus disease (EVD)** is clinically indistinguishable from Marburg virus disease (MVD), and it can also easily be confused with many other diseases prevalent in Equatorial Africa. The most common diagnostic methods are therefore RT-PCR in conjunction with antigen-capture ELISA which can be performed in field or mobile hospitals and laboratories. There are currently **no Food and Drug Administration-approved vaccines** for the prevention of EVD. The most promising ones are DNA vaccines or are based on adenoviruses, vesicular stomatitis Indiana virus (VSV) or filovirus-like particles (VLPs) as all of these candidates could protect nonhuman primates from ebola virus-induced disease.

ADI has cloned, expressed, and purified Ebola virus nucleoprotein (NP), VP40, and GP, made antibodies and developed antibody ELISA kits to determine the efficacy of various existing vaccines and test new vaccines. These kits will also help determine the course of Ebola virus protein antibodies during natural infection or in vaccinated individuals.

Zaire-Ebola vaccine Related ELISA kits

(See Details at the website) http://4adi.com/commerce/catalog/spcategory.jsp?category_id=2762

ELISA Kit Description	Species	IgG Specific Cat#	IgM Specific Cat#
Zaire-Ebola Virus Nucleoprotein (EBOV NP) antibody ELISA Kits**	Mouse	AE-320500-1	AE-320510-1
	Human	AE-320520-1	AE-320530-1
	Monkey	AE-320550-1	AE-320560-1
Zaire-Ebola Virus Glycoprotein (EBOV GP) antibody ELISA Kits**	Mouse	AE-320600-1	AE-320610-1
	Human	AE-320620-1	AE-320630-1
	Monkey	AE-320650-1	AE-320660-1
Zaire-Ebola Virus Glycoprotein (EBOV VP40) antibody ELISA Kits**	Mouse	AE-320700-1	AE-320710-1
	Human	AE-320720-1	AE-320730-1
	Monkey	AE-320750-1	AE-320760-1

****Notes:** The above ELISA kits contain recombinant protein made and purified from *E. coli* or sf9 host cell. There is no Ebola virus or antibodies in the kit. The kit transport or usage does not pose any safety issue. However, if Ebola positive samples are tested using the kit then they must be used in appropriate BSL4 labs. Highly purified recombinant Zaire-Ebola virus nucleoprotein (NP) and rabbit's antibodies are also available.

AE-320520-1-Flr 140802A

