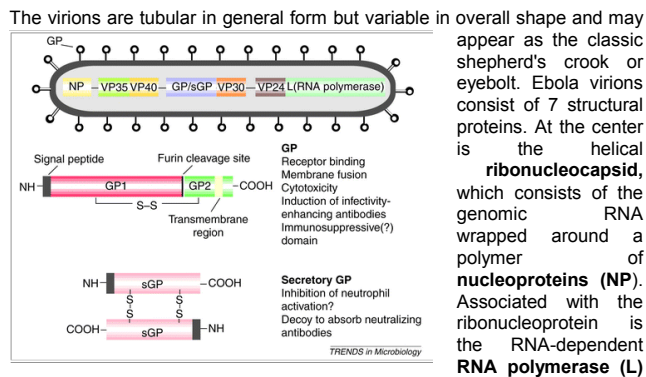


Product Specification Sheet

**Recombinant (HEK) Bundibugyo Ebola virus glycoprotein RBD domain**

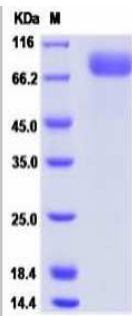
□ Cat # BVRB46-R-10	Recombinant (HEK) Bundibugyo Ebola virus RBD domain (1-308aa, hlgG1-Fc-tag, 57 kda, low endotoxin)	<b>SIZE:</b> 10 ug
□ Cat # BVRB46-R-100	Recombinant (HEK) Bundibugyo Ebola virus RBD domain (1-308aa, hlgG1-Fc-tag, 57 kda, low endotoxin)	<b>SIZE:</b> 100 ug
□ Cat # BVRB46-BTN	Biotin- Recombinant (HEK) Bundibugyo Ebola virus RBD domain (1-308aa, hlgG1-Fc-tag, 57 kda, low endotoxin)	<b>SIZE:</b> 100 ul

**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 five known strains of Ebola: **Bundibugyo, 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%.



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 Bundibugyo ebolavirus **Cat# BVRB46-R-10** (strain Uganda 2007, protein accession #AC128624.1) RBD domain was expressed in HEK with **the Fc region of human IgG1** at the C-terminus (RBD, >95%, ~57 KDa). Purified protein is supplied in PBS [pH 7.4] (see lot sp. Conc. On vial)

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

**Endotoxin:** <1.0 EU per µg protein as determined by the LAL method.

**Cat#BVRB46-BTN Biotin-conjugate**

Purified protein was coupled to Biotin using Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC) at F/P ratio ~10:20:1. The protein is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide. Reconstitute powder in

PBS to prepare stock solution (it is also possible to dissolve the powder to make 1:10 diluted stock). Suggested conjugate dilutions are 1:1,000-1:3,000 ELISA, 1:5,00-1:2,000 for western; 1:500-1:2000 for IHC/IF.

**User must test and optimize the dilution for a given application.**

**Storage**

**Short-term:** unopened, undiluted vials for less than a week at –20°C

**Long-term:** at –80°C 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.

**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.

**Related material available from ADI**

BVGP41-A	Rabbit Anti-Bundibugyo Ebola virus glycoprotein (BDBV GP) IgG, aff pure
BVGP45-R-10	Recombinant (sf9) Bundibugyo Ebola virus glycoprotein (minus transmembrane domain, his-tag, 73 kda), purified
EVGP16-R-10	Recombinant (sf9) Sudan-Ebola virus glycoprotein (minus transmembrane domain, his-tag, 68 kda), purified
EVGP17-R-10	Recombinant (sf9) Zaire Ebola virus glycoprotein (minus transmembrane domain, his-tag, 68 kda), purified
EVGP18-M	Mouse monoclonal Anti-Zaire Ebola virus glycoprotein (EBOV GP) IgG, purified
VLP14-S	Anti-Zaire Ebola virus-like particles (VLPs containing NP, GP, and VP40) antiserum
EVNP15-R-10	Recombinant (E.coli) Zaire Ebola virus nucleoprotein (EBOV NP) (full length, his-tag, 82 kda), purified
EVPO11-A	Anti-Zaire Ebola virus L-polymerase IgG, aff pure
EVZ12-M	Monoclonal Anti-Zaire Ebola virus IgG, aff pure
EVZ13-M	Monoclonal Anti-Zaire Ebola virus IgG, aff pure
EVZ14-M	Monoclonal Anti-Zaire Ebola virus IgG (mixture of EVZ12-M and EVZ13-M), aff pure
RVGP31-A	Anti-Reston Ebola virus Glycoprotein (RESTV GP) peptide IgG pure
RVGP31-C	Purified Reston Ebola virus Glycoprotein (RESTV GP) control for western blot
RVGP35-R-10	Recombinant (sf9) Reston Ebola virus glycoprotein (minus transmembrane domain, his-tag~72 kda), purified
SVGP16-R-10	Recombinant (sf9) Sudan-Ebola virus glycoprotein (minus transmembrane domain, his-tag, 68 kda), purified
BVRB46-R-10	Recombinant (HEK) Bundibugyo Ebola virus glycoprotein RBD domain (1-308aa, hlgG1-Fc-tag, 58 kda, low endotoxin)
EVGP18-R-10	Recombinant (sf9) Zaire Ebola virus glycoprotein 1 (GP1, 1-501aa, his-tag, 52 kda, >95%), Low endotoxin
EVRB11-R-10	Recombinant (HEK) Zaire Ebola virus glycoprotein RBD domain (1-308aa, his-tag, 36 kda, low endotoxin)
EVRB12-R-10	Recombinant (HEK) Zaire Ebola virus glycoprotein RBD domain (1-308aa, hlgG1-Fc-tag, 61 kda, low endotoxin)
SVRB11-R-10	Recombinant (HEK) Sudan-Ebola virus RBD domain (1-320aa, his-tag, ~46 kda, low endotoxin), purified

BVRB46-R-10 141024P

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