

Product Specification Sheet

**Marburg virus glycoprotein (MARV GP) Antibodies**

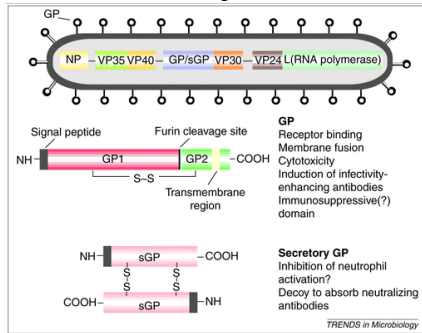
□ Cat # MVGP17-A

Rabbit Anti-Marburg virus glycoprotein GP (Muskoe) IgG, aff pure

**SIZE:** 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%.

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 and Antibodies**

<b>Antigen</b>	DNA vaccine expressing ectodomain of GP (Marburg/Muskoe/Genbank #DQ217792) protein (24-649aa).
<b>Ab Host/type</b>	Rabbit, Polyclonal IgG Aff. pure (Cat# MVGP17-A). Supplied in PBS, PH 7.4, 0.1% Gelatin with 0.01% sodium azide as preservative.
<b>2-Ab</b>	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates)
<b>-ve control IgG</b>	#20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Form & Storage of Antibodies/Peptide Control Antibodies**

□ 100 ul □ solution □ lyophilized powder

Buffer: PBS+0.1% gelatin+0.1% azide

**Reconstitute powder** 100 ul of PBS.

**Storage**

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

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

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder.

**Recommended Usage**

**Western Blotting:** An initial dilution of 1:200-1:1000 dilution is recommended for Western.

**ELISA:** 1:1000-1:10,000; using 50-100 ng antigen/well.

**Histochemistry & Immunofluorescence:** not tested.

**Specificity & Cross-reactivity:**

The antibody reacts with glycoprotein region of Marburg virus VLPs and recombinant MARV GP. No cross reactivity to Ebola GPs. Antibodies and recombinant GP proteins from various Ebola and Marburg viruses (Angola #MVGP15-R-10 and Muskoe #MVGP16-R10) are 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. Adam M (2010) Emerg Infect Dis 16(12):1969-72

\*This product is for In vitro research use only.

**Related material available from ADI**

MVGP12-A	Rabbit Anti-Marburg virus glycoprotein peptide (MARV GP) IgG, aff pure
MVGP13-M	Mouse Monoclonal Anti-Marburg virus glycoprotein (MARV GP) IgG,
MVGP15-R-10	Rec. (sf9) Marburg virus glycoprotein (Angola, his-tag, >95%), purified
MVGP15-R-100	Res. (sf9) Marburg virus glycoprotein (Angola, his-tag, >95%), purified
MVGP16-BTN	Biotin-Res. (sf9) Marburg virus glycoprotein (Musoke, HA-tag, >95%), purified
MVGP16-R-10	Res. (sf9) Marburg virus glycoprotein (Musoke, HA-tag, >95%), purified
MVGP17-A	Rabbit Anti-Marburg virus glycoprotein GP (MARV GP 26-649 aa/Muskoe/DNA vaccine) IgG, aff pure
MVGP18-A	Rabbit Anti-Marburg virus glycoprotein GP (MARV GP 26-649 aa/Popp/DNA vaccine) IgG, aff pure
MVLP11-S	Rabbit Anti-Marburg virus-like Particles (Muskoe, VLPs containing NP, GP, and VP40) antiserum
MVLP12-A	Rabbit Anti-Marburg virus-like Particles (Muskoe, VLPs containing NP, GP, and VP40) IgG, aff pure
AE-322600-1	Mouse Anti-Marburg (Angola) virus glycoprotein (GP) IgG ELISA Kit, 96 tests,
AE-322610-1	Mouse Anti-Marburg (Angola) glycoprotein (GP) IgM ELISA Kit, 96 tests,
AE-322620-1	Human Anti-Marburg (Angola) glycoprotein (GP) IgG ELISA Kit, 96 tests,
AE-322630-1	Human Anti-Marburg (Angola) glycoprotein (GP) IgM ELISA Kit, 96 tests,
AE-322640-1	Rabbit Anti-Marburg (Angola) glycoprotein (GP) IgG ELISA Kit, 96 tests,
AE-322650-1	Monkey Anti-Marburg (Angola) glycoprotein (GP) IgG ELISA Kit, 96 tests,
AE-322660-1	Monkey Anti-Marburg (Angola) glycoprotein (GP) IgM ELISA Kit, 96 tests,

MVGP17-A-Rabbit-Anti-Marburg-GP-IgG

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Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; Email: [service@4adi.com](mailto:service@4adi.com)

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](mailto:customerservice@lifetechindia.com) Website: [www.lifetechindia.com](http://www.lifetechindia.com)