

Recombinant EBOV Envelope GP1 Protein, His-tagged

Cat. No. EBO-197 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Ebola virus envelope glycoprotein is initially produced as a precursor which is then cleaved into two subunits, GP1 and GP2. This is a recombinant version of GP1, produced in HEK293 cells, and incorporating a C-terminal 6x His-tag.
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Tag	His
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Background

Ebola hemorrhagic fever (EHF) is a severe disease caused by several species of Ebolavirus (EBOV), in the family Filoviridae. Prior to 2007, four species of EBOV had been identified, with two (Zaire ebolavirus and Sudan ebolavirus) having caused significant disease outbreaks in humans. The presence of a fifth EBOV virus species, Bundibugyo ebolavirus (BEBOV) was identified after an outbreak of EHF in the Bundibugyo District of western Uganda in 2007. Outbreaks of EHF are associated with person-to-person transmission after the virus is introduced into humans from a zoonotic reservoir. During outbreaks the virus is commonly transmitted through direct contact with infected persons or their bodily fluids. The onset of EHF is associated with nonspecific signs and symptoms, including fever, myalgias, headache, abdominal pain, nausea, vomiting, and diarrhoea. In the later stages of disease, overt haemorrhage has been reported in up to 50% of cases.

Ebola virus envelope glycoprotein is initially produced as a precursor known as pre-GP, which is cleaved by furin into two subunits, GP1 and GP2, which remain associated through a disulfide linkage between Cys53 of GP1 and Cys609 of GP2. This heterodimer assembles into a 450- kDa trimer at the surface of nascent virions. The virion-attached GP is critical in the EBOV life cycle, as it is solely responsible for attachment, fusion and entry of target cells. Moreover, GP is responsible for critical

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

pathogenic differences among viral species. The role of Ebola virus envelope glycoprotein in EBOV pathogenesis is unclear, but is examined in detail by Lee and Saphire (2009).

Molecular Mass 516 kDa

Purity >95% as determined by SDS-PAGE.

Notes This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.

Type Recombinant

ClassID 1 Infectious Disease

GENE INFORMATION

Synonyms Ebola Virus Envelope Glycoprotein (GP1) (Zaire, Kikwit-95)

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