

Recombinant Lassa Fever Virus GP1 Protein, sFc-tagged

Cat. No. LAS-476 **Lot. No.** (See product label)

SPECIFICATION

Product Overview This Lassa Fever Virus GP1 Protein (Sheep Fc) is a recombinant protein expressed in HEK293 cells. The purified protein is designed for use in research and development of vaccines and immunodiagnostics for Lassa Fever.

Tag sheep Fc

Background

Though first described in the 1950s, the virus causing Lassa disease was not identified until 1969. The virus is a single-stranded RNA virus belonging to the virus family Arenaviridae. It is an enveloped virus with glycoprotein spikes on its surface. The Lassa Fever virus glycoprotein is synthesized as a 76- kDa glycosylated precursor protein (GP-C), which is posttranslationally cleaved into the N-terminal 44- kDa subunit Lassa Fever virus GP1 and the membrane bound 36- kDa subunit Lassa Fever virus GP2. GP1 interacts with the cellular receptor α -dystroglycan.

Lassa fever is a severe and sometimes fatal haemorrhagic disease caused by the Lassa fever virus (LAFV). First identified in 1969 in Nigeria, LAFV is an enveloped single stranded RNA virus that belongs to the genus mammarenavirus, of the Arenaviridae family of viruses. The natural reservoir for LAFV is the *Mastomys natalensis* rat, and transmission of LAFV to humans is through contact with contaminated rat urine and faeces. The virus is also spread from person-to-person via contact with contaminated human excreta, blood and bodily secretions, which causes a significant risk to health workers. LAFV is now endemic in West Africa and a significant outbreak of Lassa fever in 2016 resulted in 160 deaths.

Most individuals infected with LAFV remain asymptomatic but severe disease may occur in 15% of cases, with 1% of cases resulting in death. Symptoms of LAFV

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infection are variable, and non-specific, making early diagnosis difficult. The symptoms associated with Lassa fever range from mild fever, with headaches and fatigue, to severe life threatening multi organ failure. Early stages of the disease resemble symptoms of typhoid and malaria and therefore misdiagnosis is a risk (WHO).

Formulation

Dulbecco's phosphate buffered saline pH7.4, sterile filtered.

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**

Lassa Fever Virus GP1

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