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Product Information

Ebola Virus-like Particles (EBOV VLPs)

Cat. No.: **VLP-017YF**
This product is for research use only and is not intended for diagnostic use.

Recombinant Ebola Virus-like Particles (EBOV VLPs) are produced in mammalian HEK293 human cells, assembled with Nucleoprotein, Glycoprotein and Matrix protein. VLP is mimicking the native 3D structure of viruses which can elicit strong immune responses. However, VLPs lack viral genomic material which makes them non-infectious, unable to replicate and enhance the safety during manufacture and administration. EBOV VLPs can be used in the development of EBOV diagnostics and in vaccine development and R&D (including use as an immunogen).

Product Specifications

Structural Proteins

Nucleoprotein, Glycoprotein and Matrix protein

Expression Systems

HEK293 (please specify if other expression system is needed)

Purity

>95%

Buffer

20 mM Tris-HCl pH 8.0, 400 mM NaCl, 10mM sodium citrate

Form

Liquid

Alternative Names

Ebola Virus-like Particles; EBOV VLPs; Ebola Virus; EBOV; VLP; Virus-like particle

Storage

Store at -80 °C long term. Avoid repeated freeze/thaw cycles.

Virus Background

Virus Family

Filoviridae

Virus Species

Ebola virus

Virus Overview

EBOV carries a negative-sense RNA genome in virions that are cylindrical/tubular, and contain viral envelope, matrix, and nucleocapsid components. The overall cylinders are generally approximately 80 nm in diameter, and have a virally encoded glycoprotein (GP) projecting as 7-10 nm long spikes from its lipid bilayer surface. The gene order is 3' - leader -

NP - VP35 - VP40 - GP/sGP - VP30 - VP24 - L - trailer - 5'; with the leader and trailer being non-transcribed regions, which carry important signals to control transcription, replication, and packaging of the viral genomes into new virions. Ebola virus is one of six known species within the genus Ebolavirus. Four of the six known ebolaviruses, including EBOV, cause a severe and often fatal hemorrhagic fever in humans and other mammals, known as Ebola virus disease (EVD). Ebola virus has caused the majority of human deaths from EVD, and was the cause of the 2013-2016 epidemic in western Africa.

Virus Structure

Enveloped, negative-sense, single-stranded RNA virus

Related Disease

Ebola virus disease

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