

Product Information

Mayaro Virus-like Particles (MAYV VLPs)

Cat. No.: **VLP-019YF**

This product is for research use only and is not intended for diagnostic use.

Recombinant Mayaro Virus-like Particles (MAYV VLPs) are produced in mammalian HEK293 human cells, assembled with E1, E2 and capsid proteins. 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. MAYV VLPs can be used in the development of MAYV diagnostics and in vaccine development and R&D (including use as an immunogen).

Product Specifications

Structural Proteins

E1, E2 and capsid protein

Expression Systems

HEK293 (please specify if other expression system is needed)

Purity

>90%

Buffer

DPBS, pH7.4

Form

Liquid

Alternative Names

Mayaro Virus-like Particles; MAYV VLPs; Mayaro Virus; MAYV; VLP; Virus-like particle

Storage

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

Virus Background

Virus Family

Togaviridae

Virus Species

Mayaro Virus

Virus Strain

Acre27

Virus Overview

Mayaro virus disease is caused by the Mayaro virus infection, an acute, self-limited dengue-like illness of 3-5 days' duration. Mayaro virus, also known as MAYV, is in the family Togaviridae, and genus Alphavirus. It is closely related to other alphaviruses that produce a dengue-like illness accompanied by long-lasting arthralgia. It is only known to circulate in tropical South America. It's an enveloped, linear, positive-sense, single-stranded RNA virus. The MAYV genome consists of 5' untranslated region, 3' noncoding region, and two open reading frames (ORFs). The 5'-proximal ORF encodes for nonstructural proteins (nsP1, nsP2, nsP3, nsP4) and the 3'-proximal ORF with a 26S promoter encodes for structural proteins (capsid proteins and envelope surface glycoproteins, E1, E2, E3, C, 6K). The MAYV infection is characterized by fever, headache, myalgia, rash, prominent pain in the large joints, and association with rheumatic disease, but these signs and symptoms are unspecific to distinguish from other arboviruses. The MAYV infection can be confirmed by laboratory testing such as virus isolation, RT-PCR, and serology.

Virus Structure

Enveloped, positive-sense, single-stranded RNA virus

Related Disease

Mayaro virus disease