

12-8286: Anti-Yellow Fever Virus, Envelope (Clone YFV-136)-Purified No Carrier Protein

Clonality : Monoclonal

Clone Name : YFV-136

Application : ELISA

Isotype : Human IgG1

Description

Specificity: Clone YFV-136 specifically binds DII of the envelope (E) protein of the yellow fever virus (YFV).

Antigen Distribution: YFV primarily infects hepatocytes. It can also infect other cell types, including endothelial cells, vascular endothelial cells, and various cell types in the liver. Additionally, YFV can infect skeletal muscle cells, cardiomyocytes, nervous system cells, renal tubular epithelium, lung parenchyma, and fibroblasts associated with connective tissue.

Background: YFV is a single-stranded RNA virus belonging to the Flaviviridae family. It is transmitted to humans primarily through the bites of infected mosquitoes, particularly *Aedes aegypti* and *Aedes albopictus*. Yellow fever has been a significant public health concern for centuries, causing periodic outbreaks and devastating epidemics in tropical regions of Africa and the Americas. The virus is responsible for a wide range of clinical manifestations, from asymptomatic or mild febrile illness to severe hemorrhagic fever and organ failure, which can be fatal. The disease is named for the jaundice that can occur in severe cases due to liver involvement. Yellow Fever vaccines have been highly effective in preventing the disease, and mass vaccination campaigns have played a crucial role in controlling outbreaks. However, Yellow Fever remains a global health threat, particularly in areas where vaccination coverage is low or lacking. Ongoing surveillance, mosquito control measures, and access to vaccination are essential components of the efforts to prevent and control Yellow Fever. Clone YFV-136 is a fully human monoclonal antibody (mAb) that specifically binds the DII domain of the E protein from YFV. It is part of a panel of mAbs that have been generated to study YFV and its interactions with the human immune system. YFV-136 has been found to possess interesting cross-YFV substrain-neutralizing features, making it a potential candidate for therapeutic and prophylactic strategies against YFV. It has demonstrated the ability to neutralize multiple wild-type YFV strains and has shown therapeutic protection in animal models of YFV infection. The development and characterization of YFV-136 and other similar mAbs contribute to a better understanding of YFV biology and the development of effective treatments for YFV infection^{2,3}.

Product Info

Amount : 250µg / 1 mg

Purity: $\geq 90\%$ monomer by analytical SEC and SDS-Page

Purification :

Preparation: Recombinant antibodies are manufactured in an animal free facility using only in vitro protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Concentration: ≥ 1.0 mg/ml

Content :

Formulation: This recombinant monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Storage condition :

This antibody may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at $\leq -70^{\circ}\text{C}$. Avoid Repeated Freeze Thaw Cycles.

Application Note

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