

Human Zika Virus NS1 Monoclonal Antibody

Human Anti-Zika Virus NS1 (Zika Virus Nonstructural Protein)

CATALOG # AAA24113	HOST Human	APPLICATIONS ELISA
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PRODUCT SYNONYMS

Zika Virus NS1; Monoclonal Antibody; Human Anti-Zika Virus NS1 (Zika Virus Nonstructural Protein); anti-Zika Virus NS1 antibody

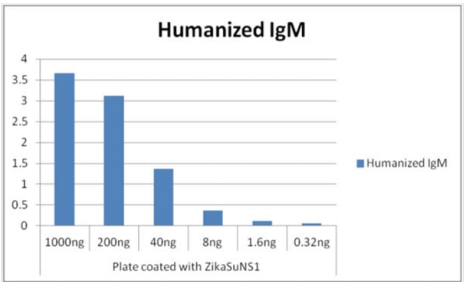
PRODUCT SPECIFICATIONS

Host	Human
Clonality	Monoclonal
Isotype	Human IgM (chimeric)
Clone Number	B4
Specificity	Recognizes the NS1 protein of Zika virus, detecting NS1 from both the Uganda and Suriname strains. It demonstrates negligible cross-reactivity with NS1 proteins from Dengue virus (all serotypes), Japanese Encephalitis Virus and Yellow Fever Virus. A small amount of cross-reactivity has been observed with the NS1 protein from West Nile Virus in a direct ELISA.
Purity/Purification	>98% (SDS-PAGE). Purified from cell culture supernatant by lectin affinity chromatography.
Form/Format	Supplied as a liquid in PBS, pH 7.4. No preservative added.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-Zika Virus NS1 antibody	ELISA
Application Notes	Other applications not tested. Optimal dilutions to be determined by the researcher.
Grade	Affinity Purified
Immunogen	Full length recombinant NS1 protein of Zika virus produced in HEK293 cells.
Hybridoma	SP2/0-Ag14 myeloma cells with spleen cells from Balb/c mice.
Preparation and Storage	May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months after receipt. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.



Application Data
Aedes aegypti Image source: Centers for Disease Control and Prevention Public Health Image Library.

Application Data
Zika rash: arm.



ELISA
An ELISA plate was coated with 2ug/ml of NS1 antigen/well, then blocked with 5% BSA. AAA24113 was titrated as shown in the figure, starting from a concentration of 1ug/ml, and the detection antibody used was IgM (HRP) Goat anti-human. The substrate used was TMB (KPL).

ADDITIONAL INFORMATION

Related Product Information for anti-Zika Virus NS1 antibody

Zika virus is an emerging disease that is spread by Aedes mosquitoes. The virus was first isolated in Central Africa, and has since spread to South Asia and more recently to South America. It is a member of the flavivirus family, and is structurally closely related to viruses such as Dengue Fever Virus. Outbreaks were reported in Micronesia in 2007 and in Brazil in 2015, confirming at least 13 autochthonous infections. The Zika virus outbreak in Brazil in 2016 has gained world-wide attention, and has been linked to an increasing number of microcephaly cases. In April 2016 the Centers for Disease Control, in the USA, confirmed the link between Zika virus infection of the fetus with microcephaly. Clinically Zika virus can cause mild fever, rash, myalgia, arthralgia and headaches, with one in four infected individuals being asymptomatic. Due to similar symptoms Zika virus infected individuals can easily be mis-identified as a dengue infection and vice-versa. In addition, Zika virus has been implicated in causing microcephaly through transmission in utero. There is no vaccine or specific treatment available for Zika virus. The NS1 protein is a major non-structural protein expressed by the Zika Virus. The NS1 monomer is a glycosylated protein of ~45kD, which associates with lipids and forms a homodimer inside infected cells. It is necessary for viral replication, and is also secreted into the extracellular space as a hexameric lipoprotein particle, which is involved in immune evasion and pathogenesis by interacting with components from both the innate and adaptive immune systems, as well as other host factors. NS1 is one of the major antigenic markers for viral infection with Zika. The antibody is designed to provide a control for assays in which human serum is tested for antibodies specific for Zika NS1 protein, which will result from the immune response following an infection with Zika virus. The antibody has been tested in ELISA using recombinant Zika NS1 protein as the target antigen.

This human IgM anti-Zika virus NS1 monoclonal antibody has been prepared by chimerization from the mouse monoclonal antibody (clone B4). The original variable domains of this antibody have been retained, while the constant regions have been replaced with human IgM.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

