

### BACKGROUND

Zika Virus (ZIKV) was first discovered from a Rhesus Monkey in the Zika forest of Uganda in 1947. More recently, there have been outbreaks in Southeast Asia, the Pacific Islands and the Americas. ZIKV has caused a global health concern since infections have been linked to cases of Guillain-Barré syndrome and birth defects. There are two lineages of the virus: The African, and the Asian lineage. Phylogenetic studies indicate that the virus spreading in the Americas is most closely related to the Asian lineage. ZIKV is a member of the virus family *flaviviridae* and the genus flavivirus transmitted by mosquitoes. It is related to the dengue, yellow fever, Japanese encephalitis, and West Nile viruses. The virus produces 3 structural (capsid [C], premembrane [prM], envelope [E]) and 7 non-structural proteins (including NS1). Studies from other flaviviruses demonstrate an immune response primarily targets the prM, E and the secreted NS1 proteins.

### PRODUCT CHARACTERISTICS

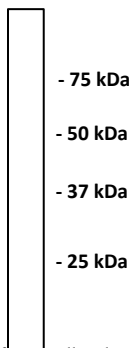
Specificity:	African and Asian strains of Zika (MR 766, DakArD 41662, PRVABC59). Does not cross react to Dengue 1-4, or Chikungunya viruses.
Source:	Murine monoclonal IgG <sub>2b</sub> .
Purification:	Protein A purified from ascites fluid.
Immunogen:	Zika viral lysate grown and purified from LLC-MK2 Rhesus Monkey Kidney Epithelial Cells. Virus strain is closely related to the Uganda strain MR 766.
Formulation:	100 µg in PBS. No preservatives added.

### STORAGE

Store at -10 °C or below. Repetitive freezing and thawing is not recommended (aliquot as necessary). Thawed material may be stored at 4°C for short-term usage.

### APPLICATIONS

#### Western Blot:



Following non-denaturing SDS electrophoresis, Zika virus lysate proteins were blotted onto nitrocellulose membrane and incubated with 5 µg/mL of Anti-Zika Envelope Clone 4C7. An alkaline phosphatase-labeled goat anti-mouse IgG was used as a secondary antibody and NBT/BCIP as substrate solution to develop signal. The envelope protein band was observed at approximately 50 kDa.

Conditions for applications such as immunoprecipitation, EIA and immunofluorescence assays must be determined experimentally by the investigator. Antibody dilutions should be prepared using buffers containing suitable protein in order to stabilize antibody activity.

### REFERENCES

Pierson and Graham (2016), Zika Virus: Immunity and Vaccine Development. Cell 167, 625-631.

***This product is intended for research, product development, quality assurance or manufacturing use. Not for use in the screening, diagnosis or prognosis of disease.***

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REF	Catalog Number	TEMP	Temperature Limitation
LOT	Batch Code	CLOCK	Expiration Date
RUO	For Research Use Only	BIOHAZ	Biological Risk
MAN	Manufacturer		

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