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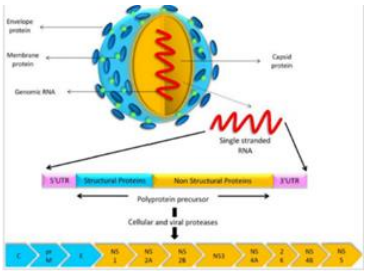
Your Molecular & Cell Technology Partner

ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

☐ Cat# ZPRM15-R-10	Zika Virus prM Protein (African, >95%, synthetic, no tag) for ELISA/Western	Size:10 ug
☐ Cat# ZPRM15-R-100	Zika Virus prM Protein (African, >95%, synthetic, no tag) for ELISA/Western	Size:100 ug



Zika virus was first isolated in 1947 from a monkey in Zika forest in Uganda. Zika virus has been known to infect humans since and a serological survey in 1952 found 50 people out of 84 had developed antibodies. Zika then spread to many African and Asian countries. Since April 2015, a large, ongoing outbreak of Zika virus that began in Brazil has spread to much of South and Central America and the Caribbean. So far, only about a dozen people in the United States have been infected, mostly travelers from abroad. But the virus is expected to arrive in Florida, Texas, and other Southern states during the spring and summer mosquito season. For most people, Zika isn't very dangerous at all. Only 1 in 5 people (20%) show any symptoms whatsoever, and those usually involve a low-grade fever, sore body, headache, and sometimes a rash. Zika is causing an alarm because of its association with birth defects or microcephaly (small head or incomplete brain development) in newborn babies by mother-to-child transmission, as well as a stronger one with neurologic conditions in infected adults, including cases of Guillain–Barré syndrome (GBS). CDC found Zika in the brains of two babies with microcephaly and evidence of Zika in two pregnancies that ended in miscarriage. Although there is still no definite cause of microcephaly but Brazil has 20-times more cases in the last two years.

Zika virus (ZIKV) is a member of the virus family Flaviviridae and the genus Flavivirus (*flavus* means yellow), transmitted by daytime-active Aedes mosquitoes, such as A. aegypti and A. albopictus. Zika virus is related to the dengue, yellow fever, Japanese encephalitis, and West Nile viruses. Like other flaviviruses, Zika virus is enveloped and icosahedral and has a non-segmented, positive-sense ss-RNA genome. There are two lineages of the Zika virus: The African lineage, and the Asian lineage. Phylogenetic studies indicate that the virus spreading in the Americas is most closely related to the Asian strain. Effective **vaccines** for yellow fever virus, Japanese encephalitis, and tick-borne encephalitis have been develop but there are **no vaccines for Zika virus**.

Source and Forms of Protein

Zika virus-PrM protein is synthetic protein without any tag (full length, >95%, ~10 KDa). Purified PrM protein is supplied in PBS containing 0.1% azide (or see lot sp. Conc. on the vial, typically 10 ug/20 ul).

Store at –20°C in suitable size aliquots. SDS may crystallize in cold conditions. It should re-dissolve by warming before taking it from the stock. This preparation is not biologically active. It is suitable for ELISA as coating antigen or western blot +ve control. Do not freeze, thaw, or heat repeatedly.

Storage

Short-term: unopened, undiluted vials for less than a week at 4°C.
Long-term: at –20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20°C or below.
Shipping: 4°C for solutions and room temp for powder.

Recommended Usage

Western Blotting**: Purified PrM is ~10 KDa. Load ~100-200 ng/lane for good visibility with appropriate antibodies.**

ELISA (1:10-50K; using 50-100 ng antigen/well).

Specificity & Cross-reactivity

Zika virus PrM sequence share 61% similarity with Spondweni virus; 50-56% with dengue virus. Zika virus African strain and Brazilian strains are 99% conserved.

References: Malone, RW et al., PLOS Neglected Tropical Diseases 2016; 10 (3): e0004530; Sikka, V; et al., Journal of Global Infectious Diseases., 2016., 8 (1): 3–15; Petersen, EE., MMWR. Morbidity and mortality weekly report., 2016., 65 (12): 315–22.

This product is for in vitro research use only.

Related Material available for ADI

Catalog#	Prod Description
RV-403100-1	Recombivirus™ Human Anti-Zika Virus (ZIKV) Envelop protein IgG ELISA kit, 96 tests, Quantitative
RV-403105-1	Recombivirus™ Human Anti-Zika Virus (ZIKV) Envelop protein IgM ELISA kit, 96 tests, Quantitative
RV-403110-1	Recombivirus™ Monkey Anti-Zika Virus (ZIKV) Envelop protein IgG ELISA kit, 96 tests, Quantitative
RV-403115-1	Recombivirus™ Monkey Anti-Zika Virus (ZIKV) Envelop protein IgM ELISA kit, 96 tests, Quantitative
RV-403120-1	Recombivirus™ Mouse Anti-Zika Virus (ZIKV) Envelop protein IgG ELISA kit, 96 tests, Quantitative
RV-403125-1	Recombivirus™ Mouse Anti-Zika Virus (ZIKV) Envelop protein IgM ELISA kit, 96 tests, Quantitative
RV-403200-1	Recombivirus™ Human Anti-Zika Virus (ZIKV) PrM protein IgG ELISA kit, 96 tests, Quantitative
RV-403205-1	Recombivirus™ Human Anti-Zika Virus (ZIKV) PrM protein IgM ELISA kit, 96 tests, Quantitative
RV-403210-1	Recombivirus™ Monkey Anti-Zika Virus (ZIKV) PrM protein IgG ELISA kit, 96 tests, Quantitative
RV-403215-1	Recombivirus™ Monkey Anti-Zika Virus (ZIKV) PrM protein IgM ELISA kit, 96 tests, Quantitative
RV-403220-1	Recombivirus™ Mouse Anti-Zika Virus (ZIKV) PrM protein IgG ELISA kit, 96 tests, Quantitative
RV-403225-1	Recombivirus™ Mouse Anti-Zika Virus (ZIKV) PrM protein IgM ELISA kit, 96 tests, Quantitative
RV-403300-1	Recombivirus™ Human Anti-Zika Virus (ZIKV) NS1 protein IgG ELISA kit, 96 tests, Quantitative
RV-403305-1	Recombivirus™ Human Anti-Zika Virus (ZIKV) NS1 protein IgM ELISA kit, 96 tests, Quantitative
RV-403325-1	Recombivirus™ Mouse Anti-Zika Virus (ZIKV) NS1 protein IgM ELISA kit, 96 tests, Quantitative
ZENV11-C	Recombinant (E. coli) Zika Virus Envelop Protein control for Western blot
ZENV11-S	Anti-Zika Virus Envelop Protein (full length, >95%, his tag) antiserum
ZENV15-R-10	Recombinant (E. coli) Zika Virus Envelop Protein (full length, >95%, his tag) for ELISA/Western
ZENV16-R-10	Recombinant (Sf-9) Zika Virus Envelop Protein (full length, >95%, his tag) for ELISA/Western
ZNS111-C	Recombinant (E. coli) Zika Virus NS1 Protein control for Western blot
ZNS111-S	Anti-Zika Virus (E. coli) NS1 Protein (full length, >95%, his tag) antiserum
ZNS115-R-10	Recombinant (E. coli) Zika Virus NS1 Protein (full length, >95%, his tag) for ELISA/Western
ZNS116-R-10	Recombinant (Sf-9) Zika Virus NS1 Protein (full length, >95%, his tag) for ELISA/Western
ZNS116-R-10	Recombinant (HEK) Zika Virus NS1 Protein (full length, >95%, his tag) for ELISA/Western
ZPRM11-C	Zika Virus prM Protein control for Western blot
ZPRM11-S	Anti-Zika Virus prM Protein (EC-domain, >95%) antiserum
ZPRM15-R-10	Zika Virus prM Protein (EC-domain, >95%, synthetic, no tag) for ELISA/Western

ZPRM15-R-10-Zika-PrM-Protein 160510SV

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com