

PRODUCT INFORMATION

Zika Virus NS5 Protein (strain Zika SPH2015) (recombinant)

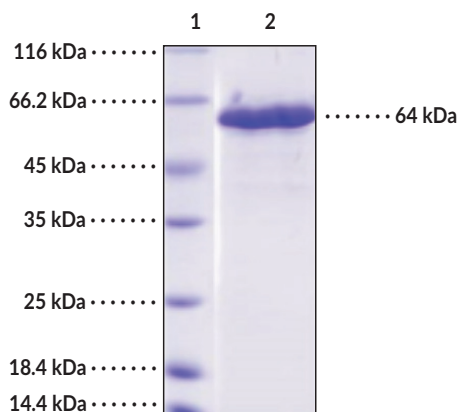
Item No. 41079

Overview and Properties

Synonyms:	ZIKV-NS5, ZIKV Non-structural Protein 5
Source:	Recombinant Zika virus C-terminal His-tagged ZIKV-NS5 protein (strain Zika SPH2015) expressed in insect cells
Amino Acids:	2,772-3,423
Uniprot No.:	A0A0U3FSM8
Molecular Weight:	76.7 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥85% estimated by SDS-PAGE
Supplied in:	Sterile 20 mM PB, 100 mM sodium chloride, 50% glycerol, pH 7.0, and 0.5 mM TCEP
Endotoxin Testing:	<1.0 EU/μg, determined by the LAL endotoxin assay
Protein	
Concentration:	<i>batch specific</i> mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: Zika Virus NS5 Protein (strain Zika SPH2015)

SDS-PAGE Analysis of Zika Virus NS5 Protein (strain Zika SPH2015). This protein has a calculated molecular weight of 76.7 kDa. It has an apparent molecular weight of approximately 64 kDa by SDS-PAGE under reducing conditions due to glycosylation.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

Zika virus (ZIKV) is a mosquito-borne, positive-stranded RNA virus and a member of the *Flavivirus* genus.^{1,2} ZIKV infection is associated with fever, rashes, and conjunctivitis, as well as more severe symptoms, which include Guillain-Barré syndrome in adults and microcephaly or congenital malformations in fetuses and newborns.^{1,3} The single-stranded RNA genome of ZIKV is translated as a polypeptide, which is cleaved by host and viral proteases into structural capsid (C), precursor membrane (prM), and envelope (E) proteins and seven non-structural proteins: NS1, NS2A, NS2B, NS3, NS4A, NS4B, and NS5.^{1,4} ZIKV NS5 is composed of an N-terminal methyltransferase (MTase) domain involved in 5' RNA capping prior to translation, a short linker region, and a C-terminal RNA-dependent RNA polymerase (RdRp) domain required for viral RNA replication.⁵⁻⁷ ZIKV NS5 inhibits host IFN signaling by binding to the human, but not mouse, transcriptional activator STAT2 and targeting it for proteasomal degradation.^{7,8} Cayman's Zika virus NS5 (strain Zika SPH2015) (recombinant) protein consists of 663 amino acids and has a calculated molecular weight of 76.7 kDa. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is approximately 64 kDa.

References

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