

Nonstructural Protein 1 (NS1) with N-terminal Histidine Tag from Zika Virus, Recombinant from Baculovirus

Catalog No. NR-50872

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Contributor and Manufacturer:

BEI Resources

Product Description:

A recombinant form of the Zika virus (ZIKV) nonstructural protein 1 (NS1) containing an N-terminal histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and was purified by immobilized-metal affinity chromatography.¹ The NS1 protein includes an N-terminal hexa-histidine tag. The predicted protein sequence is shown in Figure 1. NR-50872 has 361 residues and has a theoretical molecular weight of 41,203 daltons. The crystal structure for ZIKV NS1 protein (GenPept: [AMZ03556](#)) has been solved at 1.89 Å resolution (PDB: [5K6K](#)).

Material Provided:

Each vial contains 50 µg to 150 µg of purified recombinant NS1 protein in PBS (pH 7.4). The protein content in µg and the concentration, expressed as µg/mL, are shown on the Certificate of Analysis.

Packaging/Storage:

NR-50872 was packaged aseptically, in screw-capped plastic cryovials. This product is provided on blue ice and should be stored at -20°C immediately upon arrival. Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Nonstructural Protein 1 (NS1) with N-terminal Histidine Tag from Zika Virus, Recombinant from Baculovirus, NR-50872.”

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Brown, W. C., et al. “Extended Surface for Membrane Association in Zika Virus NS1 Structure.” [Nat. Struct. Mol. Biol.](#) 23 (2016): 865-867. PubMed: 27455458.

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Figure 1 – Predicted Protein Sequence

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1  ADPHHHHHHD VGCSVDFSCK ETRCGTGVFV YNDVEAWRDR YKYHPDSPRR
51  LAAAVKQAW E DGICGISSVS RMENIMWRSV EGELNAILEE NGVQLTVVVG
101 SVKNPMWRGP QRLPVPVNEL PHGWKAWGKS YFVRAAKTNN SFVVDGDTLK
151 ECPLKHRAWN SFLVEDHGFG VFHTSVWLKV REDYSLECDP AVIGTAVK GK
201 EAVHSDLGYW IESEKNDTWR LKRAHLIEMK TCEWPKSHTL WTDGIEESDL
251 IIPKSLAGPL SHHNTREGYR TOMKGPWHSE ELEIRFE ECP GTKVHVEETC
301 GTRGPSLRST TASGRVIEEW CCRECTMPPL SFRKDG CWY GMEIRPRKEP
351 ESNLVRSMVT A
  
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Plasmid-derived amino acids – Residues 1 to 3

Hexa-histidine tag – Residues 4 to 9

NS1 protein – Residues 10 to 361 [represents amino acid residues 795 to 1146 of the native NS protein (GenPept: [AMZ03556](#))]