

## Datasheet: PIP051A

<b>Description:</b>	RECOMBINANT WEST NILE VIRUS NS1 ANTIGEN
<b>Name:</b>	WEST NILE VIRUS
<b>Format:</b>	Rec. Protein
<b>Product Type:</b>	Recombinant Protein
<b>Quantity:</b>	100 µg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Viral
<b>Product Form</b>	Purified recombinant protein - liquid
<b>Preparation</b>	Recombinant West Nile virus NS1 protein, sequence strain NY99, expressed in 293 human cells
<b>Source</b>	HEK-293
<b>Buffer Solution</b>	Dulbecco's phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Approx. Protein Concentrations</b>	Current, batch-specific concentration 0.82 mg/ml

**Specificity** **Recombinant West Nile Virus NS1 Antigen** is a purified preparation of the West Nile virus non-structural protein 1 (NS1).

West Nile Virus (WNV), also known as West Nile Fever, is primarily a mosquito borne

virus belonging the *Flaviviridae* family. In humans the majority of infections are subclinical with patients experiencing either no or very mild symptoms, however a minority of infections result in severe disease, which may result in fatal encephalitis.

Originating in Africa, WNV was, until recently, not a significant disease of humans. Since the the late 1990's the virus has spread widely to other continents and is now an endemic pathogen in the temperate and tropic regions throughout the world. WNV infection is now considered a serious health concern in North America ([Lindsey et al. 2014](#)).

WNV is zoonotic disease with an avian wildlife resevoir to which passerine and more specifically, corvid species appear to be particularly susceptible with high recorded mortality rates ([Abdelrazec et al. 2014](#)). In addition to the human health concerns and the effect on North American avian species populations ([Wheeler et al. 2011](#)), WNV is also of potential concern in domestic mammals, in particular to equine species where mortality rates are high ([Agenvoort et al. 2013](#)). Fatal cases of West Nile have also been noted other species including non-human primates, bats and cetaceans. While the primary route of infection is via mosquitos there is some evidence that infection may also occur from other invertebrate species such as ticks, however further research is required in this area.

Recombinant West Nile virus NS1 antigen is presented in its native folded state complete with post-translational modifications, delivering optimal antigenicity and making it suitable for use in vaccine research and serology-based assays.

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<b>Purity</b>	>95% by SDS PAGE
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<b>Further Reading</b>	<ol style="list-style-type: none"><li>1. Wheeler, S.S. <i>et al.</i> (2011) Efficacy of three vaccines in protecting Western Scrub-Jays (<i>Aphelocoma californica</i>) from experimental infection with West Nile virus: implications for vaccination of Island Scrub-Jays (<i>Aphelocoma insularis</i>). <a href="#">Vector Borne Zoonotic Dis. 11(8): 1069–1080.</a></li><li>2. Abdelrazec, A, <i>et al.</i> (2014) Transmission dynamics of West Nile virus in mosquitoes and corvids and non-corvids. <a href="#">J Math Biol. 68(6): 1553-82.</a></li><li>3. Lindsey, N.P. <i>et al.</i> (2014) West Nile Virus and Other Arboviral Diseases — United States, 2013. <a href="#">MMWR Morb Mortal Wkly Rep. 63(24): 521-6.</a></li><li>4. Angenvoort, J. <i>et al.</i> (2013) West Nile viral infection of equids. <a href="#">Vet Microbiol. 29: 167(1-2): 168-80.</a></li></ol>
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<b>Storage</b>	Store at -70°C. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.
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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10209 available at: <a href="https://www.bio-rad-antibodies.com/SDS/PIP051A">https://www.bio-rad-antibodies.com/SDS/PIP051A</a> 10209
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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