Datasheet: PIP048A

BATCH NUMBER 158148

Description:	RECOMBINANT DENGUE VIRUS TYPE 2 NS1 ANTIGEN
Name:	DENGUE VIRUS TYPE 2 NS1 ANTIGEN
Other names:	DENV2 NS1 ANTIGEN
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	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.

	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.

Target Species	Viral
Product Form	Purified recombinant protein with a C-terminal 6 x His-tag - liquid
Preparation	Recombinant dengue virus serotype 2 NS1 protein, sequence strain Thailand/16681/84, expressed in 293 human cells
Buffer Solution	Dulbecco's phosphate buffered saline
Preservative Stabilisers	None present
Approx. Protein Concentrations	Total protein concentration 1.01 mg/ml
Specificity	**Recombinant dengue virus type 2 NS1 antigen** is a purified preparation of the dengue virus serotype 2 (DENV2), non-structural protein 1 (NS1). DENV2 is one of four (DENV1-4) antigenically distinct, closely related viral serotypes belonging to the *Flaviviridae* family, genus flavivirus. All four serotypes are known to cause viral infection in

humans.

Dengue virus is common mosquito-borne infection and a major cause of morbidity in tropical and subtropical regions. There is currently no vaccine to prevent, or effective anti-viral drugs to treat, dengue virus infection. In many cases infection is assymptomatic and the majority of individuals who get ill only suffer the mild, non-specific febrile symptoms characteristic of dengue fever (DF). Only a minority of infections result in severe disease, manifesting as dengue hemorrhagic fever (DHF) or dengue shock syndrome (DSS). Dengue virus infection gives lifelong immunity to the serotype in question but subsequent infection with another serotype may increase the likelihood of severe disease.

The NS1 glycoprotein is essential for viral replication and viability, and since this protein is secreted into the bloodstream, tests have been developed to diagnose DENV infections using NS1, including antigen-capture ELISA, lateral flow antigen detection, and the measurement of NS1-specific IgM and IgG responses (Guzman, M.G. *et al.* 2010).

Recombinant DENV2 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.

Purity	>95% by SDS PAGE analysis
Further Reading	1. Guzman, M.G. *et al.* (2010) Dengue: a continuing global threat. Nat Rev Microbiol. 8 (12 Suppl): S7-16.
Storage	Store at -70^{o}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.
Guarantee	12 months from date of despatch
Acknowledgements	His-tag is a registered trademark of EMD Biosciences.
Health And Safety Information	Material Safety Datasheet documentation #10286 available at: https://www.bio-rad-antibodies.com/SDS/PIP048A 10286
Regulatory	For research purposes only

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