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Antibody Datasheet

Product Name:	Mouse anti-Dengue virus serotype 4 NS1
Clone number:	FB10.C12.E5.E9
Isotype:	Mouse IgG1 lambda
Product code:	MAB12179-100 MAB12179-500
Batch Number:	18060816
Immunogen:	Recombinant Dengue virus NS1, a mixture of serotypes 1-4, from the Native Antigen Company
Amount:	100ug 500ug
Concentration:	1.0mg/ml
Buffer:	Phosphate Buffered Saline pH7.4
Preservative:	None present
Purification:	Antibody was purified by affinity chromatography on Protein G
Specificity:	This antibody is specific for the NS1 protein of Dengue virus serotype 4, and does not cross-react with NS1 from other Dengue virus serotypes. It also demonstrates negligible cross-reactivity with NS1 protein from Zika virus or other flaviviruses. No cross-reactivity is seen with Chikungunya virus E1, E2 or C proteins.
Applications:	Direct ELISA (NS1 antigen bound to plate) Sandwich ELISA as detection antibody, with MAB12295 as capture.

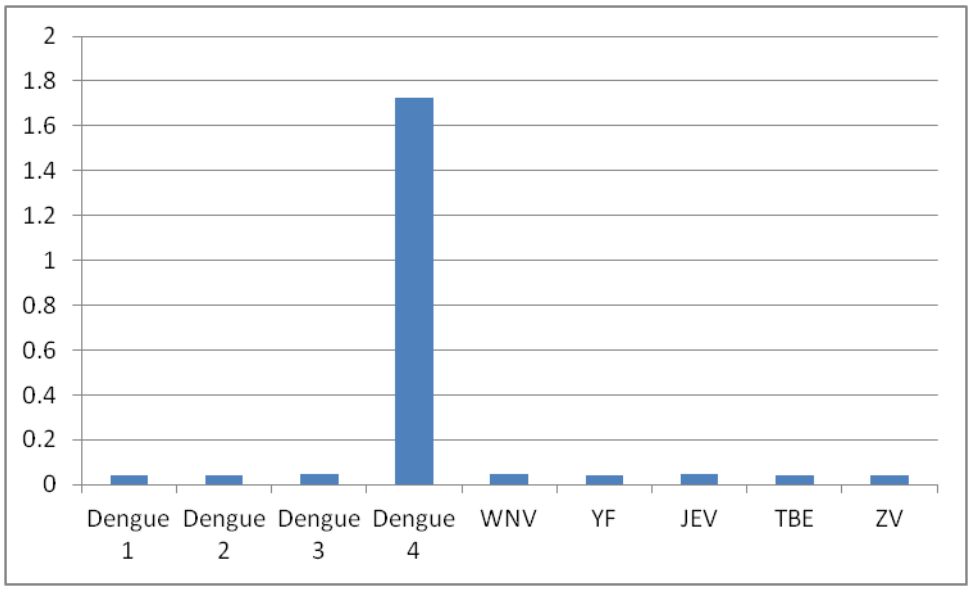
Antigen background: The NS1 protein is a major non-structural protein expressed by the Dengue Virus. The NS1 monomer is a glycosylated protein of approximately 45kD, which associates with lipids and forms a homodimer inside infected cells. It is necessary for viral replication, and is also secreted into the extracellular space as a hexameric lipoprotein particle, which is involved in immune evasion and pathogenesis by interacting with components from both the innate and adaptive immune systems, as well as other host factors. NS1 is one of the major antigenic markers for viral infection with Dengue.

With more than one-third of the world's population living in areas at risk of transmission, dengue infection is a leading cause of illness and death in the tropics and subtropics (*ref WHO for Guidelines for Diagnosis, Treatment, Prevention & Control, 2009*) As many as 100 million people are infected yearly. Dengue is caused by any one of four related viruses transmitted by mosquitoes. There are no vaccines available to prevent infection with dengue virus.

Results:

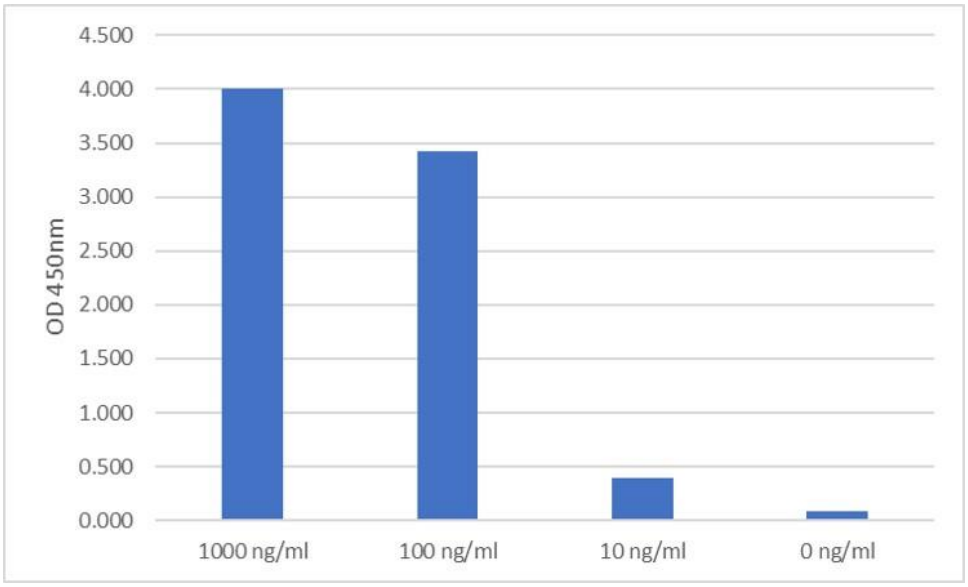
Direct ELISA - assay was performed using the method below, with antigens at 0.5ug/ml and antibody at 1ug/ml.

ELISA plates coated on bench overnight in 0.1M Carbonate pH 9.6, 100ul/well, washed once in wash buffer 300ul/well (TBS + 0.1% tween 20) and blocked 2 hours in 1% BSA in D-PBS 300ul/well. Antibodies diluted to working strength in diluent (DPBS + 1% BSA + 0.05% Tween 20 + 0.2% Proclin 950). Added at 100ul/well and incubated 2 hours shaken at ambient temperature. Washed 3 x 300ul/well. Goat anti Mouse IgG-HRP (Biorad103005) diluted 1 in 2500 in diluent, added at 100ul/well and incubated with shaking 1 hour at ambient. Plate washed 6X300ul/well. TMB (KPL Sureblue 5120-0077) added at 100ul/well. Reaction for screening assay stopped by addition of 1M HCl 100ul/well.



Sandwich ELISA - assay was performed using the method below;

Coat the plates with 1ug/ml of the capture antibodies using 0.1M Carbonate buffer pH 9.6. Incubate the plate overnight at RT. Block the plate with 2%BSA/PBS for 2 hours at RT. 300ul/well. Wash the plates 3X with 1X tris buffer. 300ul/well. Add Dengue NS1 at conc. 1000ng/ml,100ng/ml & 10ng/ml,50ul/well + 50ul of biotin labelled detection antibodies at 1ug/ml. Buffer used – 1%BSA/PBS/0.05%T20/0.09% ProClin950.Incubate the plate for 2 hours at 800rpm. Wash the plates 3X with 1X tris buffer. 300ul/well Add 1:30,000 SA-HRP, 100ul/well and incubate for 30 minutes at 800rpm. Wash the plates 3X with 1X tris buffer. 300ul/well. Add 100ul/well HK-TMB and incubate for 15 minutes at 800rpm. Stop the reaction using 1M HCl and read the plate at 405nm or 450nm.



Storage:

Store at +4^{0}C for up to three months, or at -20^{0}C for longer periods
The antibody is shipped at ambient temperature.
Avoid repeated freeze/thaw cycles.