

Antibody Datasheet / Certificate of Analysis

Product Name:	Mouse anti-Flavivirus Envelope protein
Clone number:	4G2
Isotype:	Mouse IgG2a
Product code:	AbFLAVENV-4G2-100
Batch Number:	18091112
Immunogen:	Dengue Virus Type 2 antigen
Amount:	100ug
Concentration:	1.0 mg/ml
Buffer:	Phosphate Buffered Saline pH7.4
Preservative:	0.02% Proclin 300.
Purification:	Antibody was purified from hybridoma cell culture supernatant by affinity chromatography on Protein A
Specificity:	Recognises flavivirus group specific antigens (Dengue virus, West Nile Virus, Japanese Encephalitis, Zika virus etc). It binds to the fusion loop at the extremity of domain II of protein E.
Applications:	ELISA Neutralisation Western Blot (non-reducing conditions) Flow cytometry

Antigen background: This antibody binds to a conserved epitope on the E protein of the flavivirus family. It has been shown to recognise Dengue virus, West Nile virus, Japanese Encephalitis virus and Zika Virus (Aubry et al. 2016). It binds to the fusion loop at the extremity of domain II of E protein and prevents syncytia formation (Summers, 1989). The epitope is highly conserved amongst flaviviridae and has been functionally analyzed in detail by Crill and Chang (2004)

References: **Nawa, M. et al (2001)** Development of dengue IgM-capture enzyme-linked immunosorbent assay with higher sensitivity using monoclonal detection antibody. *J. Virol Methods* 92:65-70.

Aubry, M. et al (2016) Inactivation of Zika virus in plasma with amotosalen and ultraviolet A illumination. *Transfusion* 56:33-40

Summers, P. et al (1989) Flaviviruses can mediate fusion from without in *Aedes albopictus* mosquito cell cultures. *Virus Res.* 12:383-392

Crill, W. and Chang, G. (2004) Localization and characterization of flavivirus envelope glycoprotein cross-reactive epitopes. *J. Virol.* 78:13975 - 86

Storage: Store at +4⁰C for up to three months, or at -20⁰C for longer periods
The antibody is shipped at ambient temperature.
Avoid repeated freeze/thaw cycles.

Direct ELISA data

Dengue Virus Serotype 2 VLP (DENV2-VLP-100 from Native Antigen) coated onto a plate at 5µg/ml. Anti-flavivirus antibody (AbFLAVENV-4G2) was added to plate in a 3-fold serial dilution starting at 1000 ng/ml. Detection performed using HRP labelled goat anti-mouse IgG (AbD Serotec, 0300-0108P).

