

## Antibody Datasheet

**Name:** Human IgG1 Anti-Flavivirus Envelope Protein Antibody (4G2)

**Product Code:** MAB12268-100

**Batch #:**

**Date of Manufacture:**

**Product Description:** Human IgG1 monoclonal antibody specific for flavivirus envelope protein (clone 4G2). This humanised IgG1 anti flavivirus envelope protein monoclonal antibody has been prepared by chimerization from the mouse monoclonal antibody clone 4G2. The original variable domains of this antibody have been retained, whilst the constant regions have been replaced with human IgG1. The antibody is then expressed in HEK293 cells.

**Clone Number:** 4G2

**Isotype:** IgG1

**Amount:** 0.1 mg

**Concentration:** 1.0 mg/ml

**Purity:** >95%

**Presentation:** Liquid

**Buffer:** PBS pH7.4

**Preservative:** 0.02% Proclin 300

**Immunogen:** Dengue Virus Type 2 antigen

**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.

### Usage Guidelines

**Shipping:** The antibody is shipped at ambient temperature.

**Short Term Storage:** +4°C

**Long Term Storage:** -20°C

X

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QC

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QA

**Products are for Research Use or for Further Manufacturing Use only. Not for Diagnostic or Therapeutic Use.**

