Anti-Flavivirus group antigen [D1-4G2-4-15 (4G2)] Standard Size Ab00230-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG2a format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgG1, Fc Silent™, Kappa
Clone Number: D1-4G2-4-15 (4G2)
Alternative Name(s) of Target: Protein E; Envelope Protein
UniProt Accession Number of Target Protein:
Published Application(s): IHC-P, NTRL, WB, ELISA, FC, IF
Published Species Reactivity: Dengue Virus, Flaviviridae, West Nile Virus, Yellow Fever Virus, Zika Virus
Immunogen: Dengue Virus type 2 antigens.
Specificity: Recognises flavivirus group specific antigens (Dengue virus, West Nile Virus, Japanese Encephalitis, Yellow Fever Virus, Zika virus etc). It binds to the fusion loop at the extremity of domain II of protein E.
Application Notes: This antibody binds to flavivirus group antigen, protein E. It can be used as an anti-Dengue virus antibody, anti-West Nile virus antibody, anti-Japanese Encephalitis, anti-Yellow Fever Virus or anti-Zika Virus antibody (Aubry et al. 2016) to identify cells infected with these flaviviridae. It binds to the fusion loop at the extremity of domain II of E protein from all four serotypes 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 (PMID: 15564505). Previous studies have used acetone- (Henchal et al. 1982) or methanol-fixed slides (Moreland & Tay, 2010). Please note that binding of this antibody has been reported to be sensitive to reduction and Western Blots should be performed under non-reducing conditions (Lai et al. 2008). A version of 4G2 directly conjugaed to APC was used by Quicke and co-workers (Quicke, 2016) to detect Zika virus in human placental macrophages by flow-cytometry (Quicke 2016). Ramaiah et al. (2016) used Ab00230-2.0 at a 1:200 dilution to stain for Zika virus in methanol-fixed Vero cells 48 h post-infection.
Antibody First Published in: Nawa et al. Development of dengue IgM-capture enzyme-linked immunosorbent assay with higher sensitivity using monoclonal detection antibody. J Virol Methods

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PMID:11164919

Note on publication:

Product Form

Size: 200 µg Purified antibody.
Purification: Protein A affinity purified
Supplied In: PBS with 0.02% Proclin 300.
Storage Recommendation: Store at 4ºC for up to 3 months. For longer storage, aliquot and store at -20ºC.
Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.

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