Product Datasheet

Flavivirus group antigen Antibody (D1-4G2-4-15 (4G2)) - Chimeric - Azide and BSA Free

NBP2-52666-0.2mg

Unit Size: 0.2 mg

Store at 4C for up to 3 months. For longer storage, aliquot and store at -20C.

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Publications: 11

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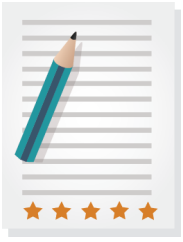
Updated 10/23/2024 v.20.1



NBP2-52666-0.2mg

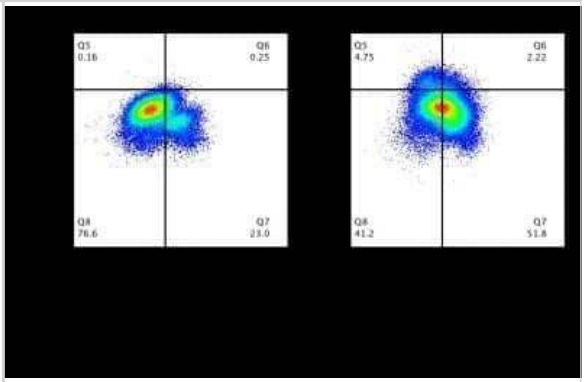
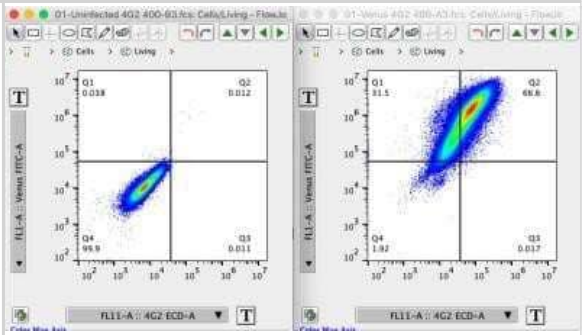
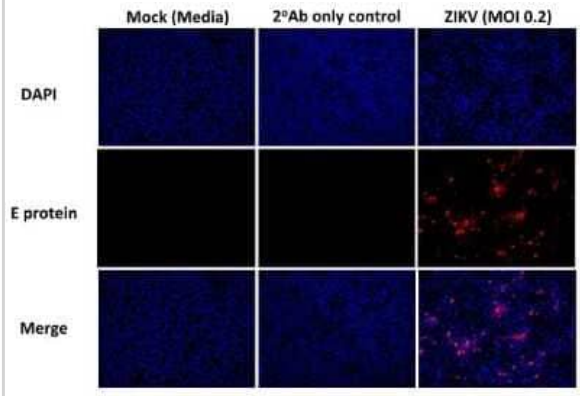
Flavivirus group antigen Antibody (D1-4G2-4-15 (4G2)) - Chimeric - Azide and BSA Free

Product Information	
Unit Size	0.2 mg
Concentration	1 mg/ml
Storage	Store at 4C for up to 3 months. For longer storage, aliquot and store at -20C.
Clonality	Monoclonal
Clone	D1-4G2-4-15 (4G2)
Preservative	0.02% Proclin 300
Isotype	IgG Kappa
Purity	Protein A purified
Buffer	PBS

Product Description	
Host	Rabbit
Species	Virus
Reactivity Notes	Dengue Virus, Zika Virus, West Nile Virus, Yellow Fever Virus, Flaviviridae
Specificity/Sensitivity	This Flavivirus group antigen Antibody (D1-4G2-4-15 (4G2)) - Chimeric 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.
Immunogen	This recombinant Flavivirus group antigen Antibody (D1-4G2-4-15 (4G2)) - Chimeric was prepared from Dengue Virus type 2 antigens.

Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, CyTOF-ready, Neutralization
Recommended Dilutions	Western Blot 1:100 - 1:2000, Flow Cytometry 1:10 - 1:1000, ELISA 1:100 - 1:2000, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin, Neutralization, CyTOF-ready
Application Notes	This antibody is CyTOF ready. This chimeric rabbit antibody was made using the variable domain sequences of the original murine IgG2a format, for improved compatibility with existing reagents, assays and techniques. 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 NBP2-52709 at a 1:200 dilution to stain for Zika virus in methanol-fixed Vero cells 48 h post-infection.

Images

Flow Cytometry: Flavivirus group antigen Antibody (D1-4G2-4-15 (4G2)) - Chimeric [NBP2-52666] - Left: Uninfected cells. Right: Cells infected with yellow fever 17D virus, MOI=1. Image from verified customer review. Analysis using NBP2-52666F conjugate.	
Flow Cytometry: Flavivirus group antigen Antibody (D1-4G2-4-15 (4G2)) - Chimeric [NBP2-52666] - Left panel: uninfected VeroB4 cells stained with 4G2 antibody at 1:400. Right panel: VeroB4 cells infected with Yellow-Fever 17D-Venus virus, stained with 4G2 antibody at 1:400. The signal from the 4G2 antibody correlates well with the Venus signal from the virus. Image from verified customer review.	
Immunocytochemistry/Immunofluorescence: Flavivirus group antigen Antibody (D1-4G2-4-15 (4G2)) - Chimeric [NBP2-52666] - Detection of Zika virus. Immunofluorescence images of Vero cells infected with ZIKV after 30h infection as well as controls. Cells were fixed in 4% PFA for 30 min at RT. Primary antibody (Rabbit IgG) staining was performed in 0.3% Triton X-100 at 1:20 dilution overnight at 4C, detected using a Goat Anti-Rabbit IgG (1:500) for 1h at RT and counterstained with DAPI.	

Publications

Hans C. Leier, Jules B. Weinstein, Jennifer E. Kyle, Joon-Yong Lee, Lisa M. Bramer, Kelly G. Stratton, Douglas Kempthorne, Aaron R. Navratil, Endale G. Tafesse, Thorsten Hornemann, William B. Messer, Edward A. Dennis, Thomas O. Metz, Eric Barklis, Fikadu G. Tafesse A global lipid map defines a network essential for Zika virus replication Nature Communications 2020-07-21 [PMID: 32694525]

Cherkashchenko L, Gros N, Trausch A et al. Validation of Flavivirus Infectious Clones Carrying Fluorescent Markers for Antiviral Drug Screening and Replication Studies bioRxiv 2023-04-05 (ICC/IF)

Details:
Dilutions: 1:1000

Moreno GK, Newman CM, Koenig MR, Mohns MS Long-term protection of rhesus macaques from Zika virus reinfection J Virol 2019-12-06 [PMID: 31801867]

Song DH, Garcia G Jr, Situ K et al. Development of a blocker of the universal phosphatidylserine- and phosphatidylethanolamine-dependent viral entry pathways Virology 2021-05-21 [PMID: 34020328] (FLOW)

Details:
Citation using the Alexa Fluor 647 format of this antibody.

Li Y, Shi S, Xia F et al. Zika virus induces neuronal and vascular degeneration in developing mouse retina Acta neuropathologica communications 2021-05-25 [PMID: 34034828] (IF/IHC)

Rossi F, Josey B, Sayitoglu EC et al. Characterization of zika virus infection of human fetal cardiac mesenchymal stromal cells PloS one 2020-09-17 [PMID: 32941515] (FLOW, Human)

Thulasi Raman SN, Latreille E, Gao J et al. Dysregulation of Ephrin receptor and PPAR signaling pathways in neural progenitor cells infected by Zika virus Emerg Microbes Infect 2020-12-01 [PMID: 32873194] (IHC-P, Virus)

Details:
ZIKV

Martinez Le, Garcia G, Contreras D et Al. Zika Virus Mucosal Infection Provides Protective Immunity J. Virol. 2020-02-12 [PMID: 32051274]

Garcia G, Paul S, Beshara S et al. Hippo Signaling Pathway Has a Critical Role in Zika Virus Replication and in the Pathogenesis of Neuroinflammation Am. J. Pathol. 2020-02-05 [PMID: 32035058]

Goo L, Debbink K, Kose N et al. A protective human monoclonal antibody targeting the West Nile virus E protein preferentially recognizes mature virions. Nat Microbiol. 2018-11-19 [PMID: 30455471] (WB, Virus)

Zhang J, Lan Y, Li MY et al. Flaviviruses Exploit the Lipid Droplet Protein AUP1 to Trigger Lipophagy and Drive Virus Production Cell Host Microbe 2018-06-13 [PMID: 29902443] (Virus)

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]

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