Anti-NS1 [ZKA35] HRP conjugated Ab01036-10.0-BOB

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Isotype and Format: Human IgG1, Lambda
Clone Number: ZKA35
Alternative Name(s) of Target: ZIKV NS-1; non-structural protein 1; non structural protein 1
UniProt Accession Number of Target Protein:
Published Application(s): Blockade-of-Binding ELISA, BOB ELISA, Competition ELISA, ELISA
Published Species Reactivity: Zika Virus
Immunogen: Antibody ZKA35 was isolated from peripheral blood mononuclear cell (PBMC) and blood plasma collected from a ZIKV-infected patient.
Specificity: This antibody binds to the Zika virus NS1 protein at a site not targeted by antibodies cross-reactive with Dengue virus (DENV1 -4) or other flaviviruses such as West Nile Virus or Yellow Fever Virus.
Application Notes: This antibody can be used to specifically detect Zika virus as it is not cross-reactive with other flaviviridae. Balmaseda and coworkers (PMID: 28716913) used this antibody to develop a blockade-of-binding (BOB) assay able to discriminate immune responses to Zika infection from infections by other flaviviruses. In this assay, binding of ZKA35 to an NS1-antigen coated plate is blocked by Zika-specific antibodies found in positive patient serum, whilst sera from patients infected with other flaviviruses will be unable to do so as they do not contain competitive antibodies. This assay is an alternative it RT-PCR based methods, which suffer from a narrow time window during which viral RNA is detectable in bodily fluids. We exclusively offer this antibody as a horseradish peroxidase (HRP) conjugate for easy use in BOB ELISA assays (Ab01036-10.0-BOB). Unlabeled ZKA35 (ZKA35 Ab01036-10.0-CTL) can be used as a positive control. At a concentration of 5 ug/ml, unlabeled ZKA35 fully blocks binding of ZKA35-HRP.We therefore offer this HRP-conjugated antibody alongside a 40 ug vial of unconjugated control. Please refer to Ab01036-10.0-BOC or individually as Ab01036-10.0-CTL. A suggested protocol can be found here. For each user and batch, we recommend to confirm the EC70 of ZKA35-HRP binding to ZIKV NS1 prior to use with samples. Please refer to Balmaseda et al. 2018 (PMID: 29305550) for further examples of the use of this antibody and its positive control.
Antibody First Published in: Balmaseda et al. Antibody-based assay discriminates Zika virus infection from other flaviviruses Proc Natl Acad Sci U S A. 2017 Aug 1;114(31) PMID:28716913
Note on publication: Describes the development of the BOB-ELISA assay and characterisation of the specificity of this assay for Zika virus infection.

Product Form

Size: for 20 x 96-well plates We recommend the following for blockade-of-binding (BOB) ELISA assays: Use 25 ul of the provided stock diluted in 5 ml buffer per 96 well plate, with a final volume of 50 ul added to each 50 ul well (please refer to PMID: 28716913 for more information). The provided volume (500 ul) is sufficient for 20 x 96 well plates.
Purification: Protein A affinity purified
Supplied In: PBS with 0.02% Proclin 300 and 50% glycerol. 1 mg/ml isotype control antibody was added as a carrier protein to avoid loss through binding to the tube wall.
Storage Recommendation: HRP-conjugates may be stored at 4^{o}C for up to 3 months. Do not dilute HRP-conjugates into buffers containing azide. Conjugates may be stored for longer periods at -20^{o}C or -70^{o}C in the presence of 50% glycerol.
Concentration: 25 ug in 500 ul.

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