9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

12-8272: Anti-West Nile Virus (Clone: WNV-86)-Purified No Carrier Protein

Clonality : Monoclonal
Clone Name : WNV-86
Application : ELISA
Isotype : Human IgG1

Description

Specificity: WNV-86 targets E domain II, preferentially recognizing mature virions lacking prM.
Antigen Distribution: E protein is preferentially displayed on mature virions.
Background: West Nile Virus (WNV) is a mosquito-borne, enveloped, positive-stranded RNA flavivirus1. E protein is the main target of flavivirus neutralizing antibodies. E consists of three structural domains (DI, DII, DIII). WNV-86 was generated from peripheral blood mononuclear cells from donors with a history of symptomatic WNV infection1. B cells were transformed with Epstein Barr virus and screened for binding to recombinant soluble WNV E protein. Ten hybridomas were recovered, including WNV-86, which strongly neutralized WNV reporter virus particles (RVP) and completely inhibited fully infectious WNV. WNV-86 is one of the most potently neutralizing flavivirus-specific antibodies ever isolated, neutralizing 50% of virus infectivity at an IC50 of 2 ng/mL. WNV-86 also inhibited infection as a Fab fragment. WNV-86 did not neutralize Dengue or Zika virus. Neutralization escape mutations were generated in Vero cells under WNV-86 selection pressure1. Two amino acid residues in E DII, T64 and T208, individually reduced sensitivity to neutralization and when combined abrogated neutralization. Additionally, a cluster of six mutations in DII that are bound by T64 and T208 reduced neutralization sensitivity by >4 fold, suggesting a binding footprint that partially overlaps with the E binding site of prM. Indeed, virion maturation state affected neutralization. The IC50 of WNV-86 was 4-fold lower against prM- RVPs relative to prM+ RVPs. WNV-86 completely protected mice from mortality when given a single dose post-inoculation1. A LALA variant of WNV-86 that is incapable of engaging Fc receptor gave significant but reduced protection. Both wildtype and LALA WNV-86 reduced viral burden in the spinal cord and brain of infected animals. WNV-86 blocked infection in pre- and post-attachment assays1. WNV-86 is of the IgG1 isotype.

Product Info

Amount :	1 mg / 250µg
Purification :	Purity: >=90% monomer by analytical SEC and SDS-Page Preparation: Recombinant antibodies are manufactured in an animal free facility using only in vitro protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.
Content :	Concentration: >=1.0 mg/ml Formulation: This recombinant monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.
Storage condition :	This antibody may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at <= -70°C.?Avoid Repeated Freeze Thaw Cycles.

Application Note

ELISA N FC