

# WNV Env (IN) antibody (pAb)

## Rabbit Anti-West Nile Virus Envelope Protein

### Instruction Manual

Catalog Number	PK-AB718-3437
Synonyms	West Nile Virus Envelope Antibody: WNV Env
Description	West Nile Virus (WNV) is a member of the Flaviviridae, a plus-stranded virus family that includes St. Louis encephalitis virus, yellow fever virus, and Dengue virus. WNV was initially isolated in 1937 in the West Nile region of Uganda and has become prevalent in Africa, Asia, and Europe. It has rapidly spread across the United States with cases being observed in every continental state. Virus particles consist of a dense core made up of the core/capsid protein encapsulating the RNA genome surrounded by a membrane envelope embedded with envelope and matrix proteins. While the viral core protein is thought to contribute to the WNV-associated inflammation via apoptosis induced through the caspase-9 pathway, the highly glycosylated envelope protein plays a major role for WNV entry into target cells as this entry can be inhibited by using a recombinant domain III from the envelope glycoprotein. The WNV receptor has recently been identified as alpha v beta 3 integrin.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	Rabbit polyclonal WNV Envelope antibody was raised against a synthetic peptide corresponding to 15 amino acids near the center of the WNV Envelope protein (Genbank accession no. NP_776014).
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Virus
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E Note: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. Application have to be determined individually. WNV Env antibody can be used for the detection of the West Nile virus Envelope protein in ELISA. It will detect 10 ng of free peptide at 1 µg/mL.
Images	NA
References	Gould LH and Fikrig E. West Nile virus: a growing concern. <i>J. Clin. Invest.</i> 2004; 113:1102-7. Yang JS, Ramanathan MP, Muthumani K, et al. Induction of inflammation by West Nile Virus capsid through the caspase-9 apoptotic pathway. <i>Emerg. Infect. Dis.</i> 2002; 8:1379-84. Chu JJ, Rajamanonmani R, Li J, et al. Inhibition of West Nile virus entry by using a recombinant domain III from the envelope glycoprotein. <i>J. Gen. Virol.</i> 2005; 86:405-12. Chu JJ and Ng ML. Interaction of West Nile virus with $\alpha v \beta 3$ integrin mediates virus entry into cells. <i>J. Biol. Chem.</i> 2004; 279:54533-41.
Images	NA
Related Products	Blocking Peptide, Cat. No. PK-AB718-3437P WNV Envelope protein Antibody (CT), Cat. No. PK-AB718-3441; WNV Matrix protein Antibody (CT), Cat. No. PK-AB718-3431 WNV Core protein Antibody (CT) Cat. No. PK-AB718-3435; Caspase-9 Antibody (IN1), Cat. No. PK-AB718-2071

FOR IN VITRO RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC PROCEDURES.