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West Nile Virus Core Antibody
Catalog # ASC10287

Specification

West Nile Virus Core Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P06935
Other Accession	NP_776011, 27735299
Reactivity	**Virus**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**West Nile virus Core antibody can be used for the detection of the WNV Core protein in ELISA. It will detect 10 ng of free peptide at 1 µg/mL. This antibody will also detect the protein in immunoblot at 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 20 µg/mL.**

West Nile Virus Core Antibody - Additional Information

Gene ID **912267**

Other Names
West Nile Virus Core Antibody: Genome polyprotein, Core protein, NS1, Anchored core protein C

Target/Specificity
WNVgp1;

Reconstitution & Storage
West Nile Virus Core antibody can be stored at 4℃ for three months and -20℃, stable 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.

Precautions
West Nile Virus Core Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

West Nile Virus Core Antibody - Protein Information

Name POLG

Function
[Capsid protein C]: Plays a role in virus budding by binding to the cell membrane and gathering the viral RNA into a nucleocapsid that forms the core of a mature virus particle (By similarity). During virus entry, may induce genome penetration into the host cytoplasm after hemifusion induced by the surface proteins (By similarity). Can migrate to the cell nucleus where it modulates

host functions (By similarity). Overcomes the anti-viral effects of host EXOC1 by sequestering and degrading the latter through the proteasome degradation pathway (PubMed:23522008).

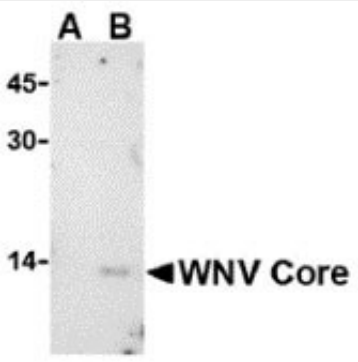
Cellular Location
[Capsid protein C]: Virion {ECO:0000250|UniProtKB:P17763}. Host nucleus {ECO:0000250|UniProtKB:P17763}. Host cytoplasm. Host cytoplasm, host perinuclear region [Small envelope protein M]: Virion membrane {ECO:0000250|UniProtKB:P03314}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P03314}. Host endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P03314}; Multi-pass membrane protein. Note=ER membrane retention is mediated by the transmembrane domains. {ECO:0000250|UniProtKB:P03314} [Non-structural protein 1]: Secreted {ECO:0000250|UniProtKB:P17763}. Host endoplasmic reticulum membrane; Peripheral membrane protein; Lumenal side {ECO:0000250|UniProtKB:P17763}. Note=Located in RE-derived vesicles hosting the replication complex. {ECO:0000250|UniProtKB:Q9Q6P4} [Serine protease subunit NS2B]: Host endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P17763} [Non-structural protein 4A]: Host endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P14335}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P17763}. Note=Located in RE-associated vesicles hosting the replication complex {ECO:0000250|UniProtKB:P17763} [RNA-directed RNA polymerase NS5]: Host endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Host nucleus. Host cytoplasm {ECO:0000250|UniProtKB:P14335}. Note=Located in RE-associated vesicles hosting the replication complex. NS5 protein is mainly localized in the nucleus rather than in ER vesicles (By similarity) Shuttles between the cytoplasm and nucleus (By similarity) {ECO:0000250|UniProtKB:P14335, ECO:0000250|UniProtKB:P17763}

West Nile Virus Core Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

West Nile Virus Core Antibody - Images



Western blot analysis of WNV Core in (A) untransfected or (B) transfected HeLa lysate with WNV Core antibody at 1 µg/mL.

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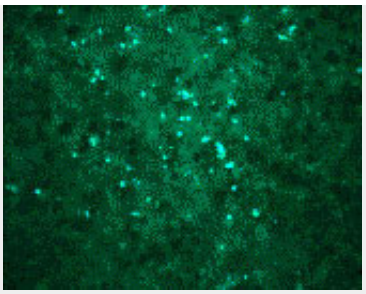

Immunocytochemical staining of transfected Vero cells using WNV Core antibody at 20 µg/mL.

West Nile Virus Core Antibody - Background

West Nile Virus Core Antibody: 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 which play a major role for WNV entry into target cells. The viral core protein is thought to contribute to the WNV-associated inflammation via apoptosis induced though the caspase-9 pathway as delivery of core gene delivery into the striatum of mouse brain and skeletal muscle resulted in cell death and inflammation.

West Nile Virus Core Antibody - References

Gould LH and Fikrig E. West Nile virus: a growing concern. J. Clin. Invest. 2004; 113:1102-7.
Chu JJ, Rajamanonmani R, Li J, et al. Inhibition of West Nile virus entry by using a recombinant domain III from the envelope glycoprotein. J. Gen. Virol. 2005; 86:405-12.
Chu JJ and Ng ML. Interaction of West Nile virus with α v β 3 integrin mediates virus entry into cells. J. Biol. Chem. 2004; 279:54533-41.
Yang JS, Ramanathan MP, Muthumani K, et al. Induction of inflammation by West Nile Virus capsid through the caspase-9 apoptotic pathway. Emerg. Infect. Dis. 2002; 8:1379-84.