ProSci

prosci-inc.com

HIGH PERFORMANCE ANTIBODIES ... AND MORE

ProSci Incorporated
12170 Flint Place
Poway, CA 92064

Toll Free: +1 (888) 513 9525
Local: +1 (858) 513 2638
Fax: +1 (858) 513 2692

techsupport@prosci-inc.com

West Nile virus (WNV) Protein Detection Set

Cat. No.: PSI-1809

West Nile virus (WNV) Protein Detection Set

Specifications

SPECIES REACTIVITY:	Human
IMMUNOGEN:	Rabbit polyclonal antibodies were raised against peptides corresponding to amino acid sequences from each of the corresponding proteins.
TESTED APPLICATIONS:	ELISA
APPLICATIONS:	These polyclonal antibodies can be used for detection of West Nile Virus proteins in bodily fluid or tissue by ELISA. Immunogenic peptides are provided as positive controls and to determine protein concentration. Each antibody will detect 10 ng of its corresponding peptide. WNV Matrix (IN) antibody will detect the precursor form only; WNV Matrix (CT) will detect both the precursor and mature form. Immunoblot applications for all antibodies are pending.

Properties

PURIFICATION:	Antibodies are supplied as affinity chromatography purified IgG.
PHYSICAL STATE:	Liquid
BUFFER:	PBS containing 0.02% sodium azide.

CONCENTRATION:	Antibody 1 mg/mL Peptide 200 µg/mL
STORAGE CONDITIONS:	Stable at 4˚C for three months, store at -20˚C for up to one year.

Additional Info

USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Background and References

BACKGROUND:	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. However, when the viruses are inside of infected cells, the matrix protein exists in its "pre-M" form as a heterodimer with the envelope proteins. Cleavage of the "pre-M" protein to its mature form occurs during release of the virus; this cleavage leads to the dissociation of the heterodimers. 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. The highly glycosylated envelope protein was shown to play a major role for WNV entry into target cells as WNV entry was inhibited by using a recombinant domain III from the envelope glycoprotein. The WNV receptor has recently been identified as alpha v beta 3 integrin. **For images please see PDF data sheet**
REFERENCES:	1) Gould LH and Fikrig E. West Nile virus: a growing concern J. Clin. Invest. 2004; 113:1102-7.
	2) Wengler G and Wengler G. Cell-associated West Nile flavivirus is covered with E+pre-M protein heterodimers which are destroyed and reorganized by proteolytic cleavage during virus release. J. Virol. 1989; 2521-6.
	3) 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.
	4) Wengler G and Wengler G. Cell-associated West Nile flavivirus is covered with E+pre-M protein heterodimers which are destroyed and reorganized by proteolytic cleavage during virus release. J. Virol. 1989; 2521-6.