

Recombinant West Nile Virus Envelope Protein, His-tagged

Cat. No. WES-621 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The West Nile Virus Envelope protein in a proprietary mammalian cell expression system. This protein is the full length ectodomain, including domains I, II and III. The protein is glycosylated, and is suitable for applications including serology testing.
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Tag	His
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Background

Since the first human West Nile Virus (WNV) infection was identified in 1937 the virus has continued to spread. West Nile virus is now found in many regions of the world including Africa, Europe, West Asia, North and South America. WNV infection is asymptomatic in 80% of cases but some individuals develop severe West Nile fever. The symptoms of West Nile fever include fever, headache, nausea and vomiting. The virus has also been associated with neurological complications and fatalities in less than 1% of infected individuals.

Currently, there is no licensed prophylactic vaccine or specific therapeutic treatment for West Nile virus infection in humans. Prevention of WNV infection is through vector control measures and the use of protective clothing to reduce human-to-human transmission.

The major envelope glycoprotein, E, of WNV mediates viral attachment and entry by membrane fusion. The West Nile Virus Envelope protein has three domains I, II and III. Neutralizing West Nile virus-specific antibodies bind to a region of domain III that is exposed on the viral surface and has been implicated in receptor binding.

Most strains of WNV contain a single N-linked glycosylation site on their E protein. It has been reported that glycosylation is important both in the level of neuroinvasiveness of the virus, and also in the effectiveness of transmission by the

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	vector Culex mosquitoes. (Moudy et al, 2009).
Purity	>95% pure by SDS-PAGE
Sequence Strain	NY99
Formulation	20mM Tris-HCl, 110mM sodium chloride, pH7.8.
Freezing	Can be frozen, but avoid multiple freeze/thaw cycles.
Storage	Avoid excessive mixing or shocking to prevent aggregation. Long term storage above -80 centigrade may result in aggregate formation and/or degradation.
Concentration	0.44 mg/mL
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease
GENE INFORMATION	
Synonyms	WNV-Env