

# RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

# **Recombinant West Nile Virus Envelope**

Catalog No.	Source
228-11648	E.Coli

#### Introduction

West Nile virus (WNV) is a virus of the family Flaviviridae part of the Japanese encephalitis (JE) antigenic complex of viruses. Image reconstructions and cryoelectron microscopyreveal a 45-50 nm virion covered with a relatively smooth protein surface. This structure is similar to virus; both belong to the genus flavivirus within the family Flaviviridae. WNV is a positive-sense, single strand of RNA, it is between 11,000 and 12,000 nucleotides long which encode seven non-structural proteins and three structural proteins. The RNA strand is held within a nucleocapsid formed from 12 kDa protein blocks; the capsid is contained within a host-derived membrane altered by two viral glycoproteins.

## Description

The E.Coli derived recombinant protein contains the West Nile N-terminus Envelope Virus immunodominant regions. The protein is fused with 6xHis tag. Mw ~42 kDa.

#### Method

Purified by proprietary chromatographic techniques.

### Purity

Protein is >95% pure as determined by 10% PAGE (coomassie staining).

#### **Formulation**

8M Urea, 20mM Tris-HCl buffer pH 7.5, 10mM beta -mercaptoethanol.

#### Storage

Protein is shipped at ambient temperature.

Upon arrival, store at -20°C.

## Stability

Five years frozen. One month in solution at room temperature.

# **Specificity**

Immunoreactive with sera of West Nile virus infected individuals.



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## **Applications**

Antigen in ELISA and Western blot. Excellent antigen for detection of West-Nile virus with minimal specificity problems.

## Amino Acid Sequence

MQLKGTTYGV CSKAFKFLGT PADTGHGTVV LELQYTGTDG PCKVPISSVA SLNDLTPVGR LVTVNPFVSV ATANAKVLIE LEPPFGDSYI VVGRGEQQIN HHWHKSGSSI GKAFTTTLKG ALEMQLKGTT YGVCSKAFKF LGTPADTGHG TVVLELQYTG TDGPCKVPIS SVASLNDLTP VGRLVTVNPFV SVATANAKVL IELEPPFGDS YIVVGRGEQQI NHHWHKSGSS IGKAFTTTLK GALEMQLKGT TYGVCSKAFK FLGTPADTGH GTVVLELQYT GTDGPCKVPI SSVASLNDLT PVGRLVTVNP FVSVATANAK VLIELEPPFG DSYIVVGRGE QQINHHWHKS GSSIGKAFTT TLKGALEHHH HHH