

Recombinant Dengue Type 1 Envelope Protein

Catalog: A2301

Package: 100 µg
Storage: ≤-20°C

FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS



Product Data Sheet

PD-A2301-Rev. A-10-2011

Name	Accession#	Source	Sequence Region	Molecular Weight	Purification	Application
Type 1 Dengue Envelope Protein	ACA48761	Insect cells	AA281-AA675	~50 kDa	Affinity	ELISA, WB

Background

Dengue virus (DENV) is an arthropod-borne virus belonging to genus *Flavivirus* of the *Flaviviridae* family. The DENV is an enveloped, single-stranded, positive-sense RNA virus with a genome size of approximately 11 kb long. It encodes three structural proteins (Capsid, prM and Envelope) and seven non-structural proteins (NS1, NS2a, NS2b, NS3, NS4a, NS4b and NS5). The envelope glycoprotein mediates virion attachment to the receptor and fusion of the virus envelope with the target cell membrane. Native virions have an elongated three-domain E molecule which lies tangentially to the virus envelope in a head-to-tail homodimeric conformation.

DENV consists of four viral serotypes referred to as DENV-1, DENV-2, DENV-3 and DENV-4. All four serotypes can cause the full spectrum of disease ranging from asymptomatic to an acute self-limiting febrile illness known as Dengue Fever (DF) or, with increasing frequency, a life-threatening hemorrhagic fever or dengue shock syndrome (DHF/DSS). It is endemic in the tropics and subtropics where an estimated 50-100 million cases occur each year, with a high mortality rate among children.

Description

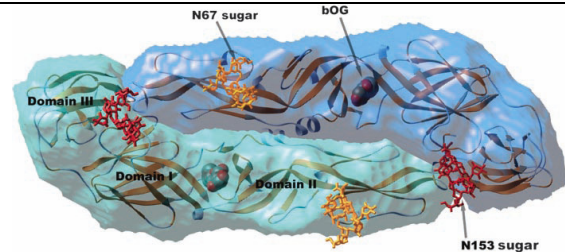
cDNA encodes amino acid 281-675 of polyprotein from the Dengue Type 1 Virus which was cloned into the insect expression vector. The secreted and soluble recombinant protein was purified using immobilized metal-chelate affinity chromatography

Concentration: ≥ 1 mg/ml by Bradford dye assay

Storage Buffer: 1X PBS, pH7.4

Preservatives: 0.1% Thimerosal, 5 mM EDTA, 1µg/ml of Leupeptin, Aprotinin and Pepstatin A

Purity: ≥ 95% on 12.5% SDS-PAGE



Semi-transparent surface representation of the dengue virus E protein *PNAS*. 2003 (100):6899-6901

Shelf Life: 12 months at recommended storage conditions

Storage & Handling: ≤ -20 °C. Avoid repeated freeze-thawing

QC Testing: Tested by SDS-PAGE per WI-71-01-3 & 4

SDS-PAGE Analysis

