ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

Cat # RP-1606 Recom. (E.Coli) Dengue Virus Type 1-4 Envelop immunodominant regions (>95%, His-tag) **Size**: 50 ug

The dengue virus (DENV) is the cause of dengue fever. It is a mosquito-borne single positive-stranded RNA virus of the family Flaviviridae; genus Flavivirus. Five serotypes of the virus have been found, all of which can cause the full spectrum of disease. Nevertheless, scientists are finding their understanding of dengue virus may be simplistic, as rather than distinct antigenic groups there appears to be a continuum. This same study identified 47 strains of dengue virus. Additionally, coinfection with and lack of rapid tests for Zika virus and chikungunya complicate matters in real world infections.

Its genome is about 11000 bases that codes for three structural proteins (capsid protein C, membrane protein M, envelope protein E) and seven nonstructural proteins (NS1, NS2a, NS2b, NS3, NS4a, NS4b, NS5). It also includes short non-coding regions on both the 5' and 3' ends.

Dengue fever is affected by 1 of 4 closely linked virus serotypes of the genus Flavivirus, family Flaviviridae. One might have dengue fever infected by the different serotype virus after the primary infection. Detection of particular antibodies to dengue viruses is used for the diagnosis in clinic. Recently, lateral flow rapid test products have become a most suitable and known method in the clinical diagnosis.

Source of Antigen

Polyvalent dengue antigen contains a mixture of 4 dengue virus serotypes Envelop antigens (22 kda each). Recombinant proteins are produced in E.coli as His-Tag fusion protein and purified.. The immunoreactive peptide span from the viral envelope to the non-functional region. The polyvalent dengue antigen consists of 25% recombinant antigen from each of the dengue subtypes in their composition. The Polyvalent dengue antigen detects all four dengue subtypes. The sensitivity and specificity could reach approximately 93% and 96% in dengue IgG and IgM ELISA assay.

The recombinant is purified by proprietary chromatographic technique and is >95% pure as determined by 12% PAGE (coomassie staining). The protein is supplied in PBS with 0.1% azide.

Suggested usage:

ELISA, Western Blot

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder.

General References: Normile, D; Science 2013 342 (6157): 415; Patil JA., Infection, Genetics and Evolution 2011. 11 (6): 1443–8; Halstead, SB, Science 1988, 239 (4839): 476–48.

**This product is for in vitro research use only.*

Catalog# Prod Description

RP-1594 Recombinant (E. coli) Dengue Virus Type 1 E Antigen (DENV-E), antigen grade (>95% 45 kda, no tag)

RP-1595 Recombinant (E. coli) Dengue Virus Type 2 Env Antigen (DENV-E, CT DIII, 15 kda), antigen grade (>95%, his-tag)

RP-1596 Recombinant (E. coli) Dengue Virus Type 3 E Antigen (DENV-E), antigen grade (>95%, 15 kda, no tag)

RP-1597 Recombinant (E. coli) Dengue Virus Type 4 E Antigen (DENV-E), antigen grade (>95%, 15 kda, no tag)

RP-1598 Recombinant (E. coli) Dengue Virus Type 2 (and epitopes for type 1, 2, and 3) E Antigen (DENV E) (23 kda, >95% pure)

RP-1599 Recombinant (E. Coli, his-tag) Dengue Virus Type 4 NS1 protein, full length immunodominant regions (>95%, his-tag, ~45 kda)

RP-1600 Recombinant (E. Coli, his-tag) Dengue Virus Type 3 NS1 protein, full length immunodominant regions (>95%, his-tag, ~45 kda)

RP-1601 Recombinant (insect cells) Dengue Virus NS1 Type 1 protein, full length mmunodominant regions (>95%, his-tag, ~45 kda)

RP-1602 Recombinant (E.Coli) Dengue Virus Type 1 envelop (domain I + II) protein (>95%, his-tag, ~32 kda)
E.Coli) Dengue Virus Type 3 envelop (domain I + II) protein (>95%, his-tag, ~32 kda)

RP-1646 Recombinant (E.Coli) Dengue Virus Type 3 envelop (domain I + II) protein (>95%, his-tag, ~32 kda)

RP-1647 Recombinant (sf9) Dengue virus (DENV) type 2 Envelope Protein (New Guinea ECD 247-675aa, ~50 kda, his-tag), low endotoxin

RP-344 Recombinant Dengue Virus Type 1 NS3 protein (29-79 aa)

RP-345 Recombinant (E.Coli) Dengue Virus 2 NS1 c-end (>95%, C-terminal regions ~122 aa, his-tag)

RP-346 Recombinant (E. Coli) Dengue Virus 2 NS1 protein (>95%, N-terminal regions, his-tag)

RP-1606-Dengue-envelope-1+2+3+4 160824SV

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