ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

Cat # RP-1601 Recombinant Dengue Virus NS1, Type 1 protein, full length **Size**: 50 ug

Dengue fever, also known as breakbone fever, is a mosquito-borne tropical disease caused by the dengue virus. Symptoms include fever, headache, muscle and joint pains, and a characteristic skin rash that is similar to measles. In a small proportion of cases the disease develops into the life-threatening dengue hemorrhagic fever, resulting in bleeding, low levels of blood platelets and blood plasma leakage, or into dengue shock syndrome, where dangerously low blood pressure occurs.

Dengue is caused by one of 5 closely related virus serotypes of the genus Flavivirus, family Flaviviridae, each serotype is sufficiently different that there is no cross-protection and epidemics caused by multiple serotypes (hyperendemicity) can occur. Dengue fever virus (**DENV**) is an RNA virus of the family Flaviviridae; genus Flavivirus. Other members of the same genus include yellow fever virus, West Nile virus, St. Louis encephalitis virus, Japanese encephalitis virus, tick-borne encephalitis virus, Kyasanur forest disease virus, and Omsk hemorrhagic fever virus. Most are transmitted by arthropods (mosquitoes or ticks), and are therefore also referred to as arboviruses (arthropod-borne viruses).

The dengue virus genome (11 kb), which code for the three different types of protein molecules (C, prM and E) that form the virus particle and seven other types of protein molecules (NS1, NS2a, NS2b, NS3, NS4a, NS4b, NS5) that are only found in infected host cells and are required for replication of the virus. There are five strains of the virus, called serotypes, of which the first four are referred to as **DENV-1, DENV-2, DENV-3 and DENV-4**. The fifth type was announced in 2013. The distinctions between the serotypes are based on their antigenicity. The diagnosis of dengue fever may be confirmed by microbiological laboratory testing. This can be done by virus isolation in cell cultures, nucleic acid detection by PCR, viral antigen detection (such as for NS1) or specific antibodies (serology). There are no approved vaccines for the dengue virus.

Form, STORAGE & STABILITY:

The insect cell derived recombinant protein contains the NS1 Dengue Virus full length Type-1 immunodominant regions (50 kDa). PBS, pH 7.4, 0.1 % Thimerosal, 5 mM EDTA, 1 µg/ml Leupeptin, Aprotinin, Pepstatin A (or see lot sp. conc on the vial).

Upon arrival, Store at -20°C. Five years frozen. One month in solution at room temperature. If supplied in powder then reconstitute it in 100ul water for 1 mg/mL stock and store in liquid at 4oC for ~ 1week or aliquots in suitable size and store at -20oC for long term storage..

APPLICATION AND SUGGESTED DILUTIONS:

Each laboratory should determine an optimum working titer for use in its particular application. Protein is >95% pure as determined by 12.5% PAGE. Users must optimize the appropriate concentration and conditions for each assay.

This item is for LABORATORY RESEARCH USE ONLY.

References: Rodenhuis-Zybert IA (2010) Cell Mol. Life. Sci. 67, 2773-2786; Wiwanitkit, V (2010) Expert review of anti-infective therapy 8 (7): 841–5; Gubler DJ (1998) Clin. M<icrobiol. Rev. 11, 480-496; Villar L (2015) NEJM 372, 113-123

Related Items

Catalog#	ProdDescription
540-100-DHG	Human Anti-Dengue Virus IgG ELISA kits, 96 tests,
540-110-DHM	Human Anti-Dengue Virus IgM ELISA kits, 96 tests
540-120-DHG	Mouse Anti-Dengue Virus IgG ELISA kit, 96 tests
540-130-DHM	Mouse Anti-Dengue Virus IgM ELISA kit, 96 tests
540-RTH-100	Human Anti-Dengue Virus (NS1) rapid test, 100/pk

AB-14310 Mouse Anti-Dengue Type 2 (envelop) IgG, aff pure
AB-21120 Anti-Dengue Type 1-4 viruses antiserum
AB-21121 Monoclonal Anti-Dengue Virus Type 1-4 (pan, E antigen) IgG, culture medium
AB-21122 Monoclonal Anti-Dengue Virus Type 1-4 (pan, NS1 glycoprotein), culture medium
AB-21123 Monoclonal Anti-Dengue Virus Type 2, NS1 glycoprotein
AB-22122 # change to AB-21122; Monoclonal Anti-Dengue Virus Type 1-4 (pan, NS1 glycoprotein), culture medium

RP-1594 Recombinant (E. coli) Dengue Virus Type 1 E Antigen (DENV E), antigen grade (>95% pure)
RP-1595 Recombinant (E. coli) Dengue Virus Type 2 E Antigen (DENV E), antigen grade (>95% pure)
RP-1596 Recombinant (E. coli) Dengue Virus Type 3 E Antigen (DENV E), antigen grade (>95% pure)
RP-1597 Recombinant (E. coli) Dengue Virus Type 4 E Antigen (DENV E), antigen grade (>95% pure)
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 NS1, Type 4 protein, full length

RP-1600 Recombinant (E. Coli, his-tag) Dengue Virus NS1, Type 3 protein, full length
RP-1601 Recombinant (E. Coli, his-tag) Dengue Virus NS1, Type 1 protein, full length
RP-1602 Recombinant (E.Coli) Dengue Virus Type 1+4, 2, and 3 envelop proteins antigen grade (>95% prue)
RP-1603 Recombinant (E.Coli) Dengue Virus Type 3 envelop protein (D-III), pure (>95%)
RP-1604 Recombinant (E.Coli) Dengue Virus Type 4 envelop protein (D-III), pure (>95%)
RP-1605 Recombinant (E.Coli) Dengue Virus Type 1 envelop protein (D-III), pure (>95%)
RP-1606 Recombinant (E.Coli) Dengue Virus Type 1-4 envelop+NS domains, pure (>95%)
RP-1607 Recombinant (E. Coli, his-tag) Dengue Virus NS1 Type 2 immunodominant protein
RP-1608 Recombinant (E.Coli) Dengue Virus Type 1 N-terminus envelop immunodominant regions, pure (>95%)

RP-1620 Recombinant (E. coli, his-tag) Dengue Virus NS1, Type 2 protein
RP-344 Recombinant Dengue Virus NS3 Type 1 protein
RP-345 Recombinant (E.Coli) Dengue Virus NS1 c-end Type 2 protein
RP-346 Recombinant (E. Coli, GST-tag) Dengue Virus NS1 n-end Type 2 protein

SP-100796-1 2A/2B Dengue Protease Substrate [Ac-Arg-Thr-Ser-Lys-Lys-Arg- pNA; MW: 937.08]
SP-100797-1 2B/3, Dengue Protease Substrate [Ac-Glu-Val-Lys-Lys-Gln-Arg- pNA; MW: 949.09]
SP-100800-1 3/4A, Dengue Protease Substrate [Ac-Phe-Ala-Ala-Gly-Arg-Lys- pNA; MW: 810.9]

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