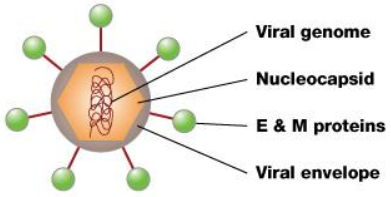
ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

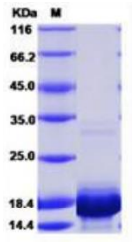
Cat # DV2C15-R-10 Recombinant (E.coli) Dengue virus (DENV) type 2 Capsid Protein **Size**:10 ug

Dengue fever, also known as break bone fever, is an infectious tropical disease caused by the dengue virus. The term dengue fever came into general use only after 1828. The word dengue is Spanish for "affectation," "careful," or "fastidious. Dengue 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 (DHF), 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 transmitted by several species of mosquito within the genus Aedes, principally A. aegypti. The virus has four different but related types 1-4 (Den1-4); infection with one type usually gives lifelong immunity to that type, but only short-term immunity to the others. Subsequent infection with a different type increases the risk of severe complications. There are up to 100 million cases of dengue fever worldwide every year; the most common occurrences are in urban parts of subtropical and tropical areas, such as Central and South America, parts of Africa, parts of Asia, the Caribbean and the Pacific.




**Dengue fever virus (DENV)** is an RNA virus of the family Flaviviridae. 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 code for the three different types of structural proteins (**C, prM and E**) that form the virus particle and seven other types of non-structural proteins (**NS1, NS2a, NS2b, NS3, NS4a, NS4b, NS5**) that are only found in infected host cells and are required for replication of the virus. Dengue lab tests include cell culture, PCR, and antibody detection by ELISA. As there is no approved Dengue vaccine, prevention is sought by reducing the habitat and the number of mosquitoes and limiting exposure to bites.

**FORMS & SOURCE:**




Dengue Virus Type 2 capsid protein (118-aa) was expressed as his-tag in E. coli and purified (>95%, ~14 kda). It is supplied in PBS, pH 7.4 and 0.05% azide (typically 0.5 mg/ml or lot specific concentration on the vial).

**STORAGE & STABILITY:**

Protein is shipped at ambient temperature. Upon arrival, Store at -20°C. 1 year frozen. One month in solution at room temperature.

If supplied in lyophilized form, then reconstitute it in 100ul water for 1mg/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:**

**Western Blotting:** Users must optimize antibody dilution depending upon the nature of samples and other technical conditions. Good detection when using antibody at 0.5 µg/mL.

**ELISA:** Assay-dependent dilution. (1:10-50K; using 50-100 ng antigen/well).

**Histochemistry & Immunofluorescence:** not tested.

**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

This item is for in vitro research use only (RUO).

**Related Items**

| Catalog# | Prod Description |
|---|---|
| 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-1600 Recombinant (E. Coli, his-tag) Dengue Virus NS1, Type 3
RP-1601 Recombinant (E. Coli, his-tag) Dengue Virus NS1, Type 1 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
SP-100797-1 2B/3, Dengue Protease Substrate
SP-100800-1 3/4A, Dengue Protease Substrate
RP-1601-Dengue-DENV-1-NS1-Protein.doc:

DV2C15-R-10-Dengue-2-Capsid-Protein 160608SV

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