



Rabbit Anti-Dengue virus envelope glycoprotein E antibody

SL0171R

Product Name:	Dengue virus envelope glycoprotein E
Chinese Name:	登革热病毒包膜glycoproteinE抗体
Alias:	Dengue virus; DV1_gp1; Genome polyprotein; envelope glycoprotein (Dengue virus type-2); Dengue virus envelope glycoprotein E; Polyprotein; DEN polyprotein.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Dengue virus type-2
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	54kDa
Cellular localization:	cytoplasmicThe cell membraneSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from Dengue virus type-2 envelope glycoprotein E:501-600/3390
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Envelope protein E binding to host cell surface receptor is followed by virus internalization through clathrin-mediated endocytosis. Envelope protein E is subsequently involved in membrane fusion between virion and host late endosomes.

Synthesized as a homodimer with prM which acts as a chaperone for envelope protein E. After cleavage of prM, envelope protein E dissociate from small envelope protein M and homodimerizes.

Function:

prM acts as a chaperone for envelope protein E during intracellular virion assembly by masking and inactivating envelope protein E fusion peptide. prM is matured in the last step of virion assembly, presumably to avoid catastrophic activation of the viral fusion peptide induced by the acidic pH of the trans-Golgi network. After cleavage by host furin, the pr peptide is released in the extracellular medium and small envelope protein M and envelope protein E homodimers are dissociated (By similarity).

Envelope protein E binding to host cell surface receptor is followed by virus internalization through clathrin-mediated endocytosis. Envelope protein E is subsequently involved in membrane fusion between virion and host late endosomes.

Synthesized as a homodimer with prM which acts as a chaperone for envelope protein E. After cleavage of prM, envelope protein E dissociate from small envelope protein M and homodimerizes (By similarity).

Non-structural protein 1 is involved in virus replication and regulation of the innate immune response. Soluble and membrane-associated NS1 may activate human complement and induce host vascular leakage. This effect might explain the clinical manifestations of dengue hemorrhagic fever and dengue shock syndrome (By similarity).

Non-structural protein 2A may be involved viral RNA replication and capsid assembly (Potential).

Non-structural protein 2B is a required cofactor for the serine protease function of NS3 (By similarity).

Serine protease NS3 displays three enzymatic activities: serine protease, NTPase and RNA helicase. NS3 serine protease, in association with NS2B, performs its autocleavage and cleaves the polyprotein at dibasic sites in the cytoplasm: C-prM, NS2A-NS2B, NS2B-NS3, NS3-NS4A, NS4A-2K and NS4B-NS5. NS3 RNA helicase binds RNA and unwinds dsRNA in the 3' to 5' direction (By similarity).

Non-structural protein 4A induces host endoplasmic reticulum membrane rearrangements leading to the formation of virus-induced membranous vesicles hosting the dsRNA and polymerase, functioning as a replication complex. NS4A might also regulate the ATPase activity of the NS3 helicase (By similarity).

Peptide 2k functions as a signal peptide for NS4B and is required for the interferon antagonism activity of the latter (By similarity).

Non-structural protein 4B inhibits interferon (IFN)-induced host STAT1 phosphorylation and nuclear translocation, thereby preventing the establishment of cellular antiviral state by blocking the IFN-alpha/beta pathway (By similarity).

RNA-directed RNA polymerase NS5 replicates the viral (+) and (-) genome, and performs the capping of genomes in the cytoplasm. NS5 methylates viral RNA cap at guanine N-7 and ribose 2'-O positions. Besides its role in genome replication, also prevents the establishment of cellular antiviral state by blocking the interferon-alpha/beta (IFN-alpha/beta) signaling pathway. Inhibits host TYK2 and STAT2 phosphorylation, thereby preventing activation of JAK-STAT signaling pathway.

Subcellular Location:

Capsid protein C: Virion (Potential).

Peptide pr: Secreted.

Small envelope protein M: Virion membrane; Multi-pass membrane protein. Host endoplasmic reticulum membrane; Multi-pass membrane protein.

Envelope protein E: Virion membrane; Multi-pass membrane protein. Host endoplasmic reticulum membrane; Multi-pass membrane protein.

Non-structural protein 1: Secreted. Host endoplasmic reticulum membrane; Peripheral membrane protein; Luminal side.

Non-structural protein 2A-alpha: Host endoplasmic reticulum membrane; Multi-pass membrane protein (Potential).

Non-structural protein 2A: Host endoplasmic reticulum membrane; Multi-pass membrane protein (Potential).

Serine protease subunit NS2B: Host endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side.

Serine protease NS3: Host endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side (By similarity). Note=Remains non-covalently associated to NS3 protease (By similarity).

Non-structural protein 4A: Host endoplasmic reticulum membrane; Multi-pass membrane protein (By similarity). Note=Located in RE-associated vesicles hosting the replication complex.

Non-structural protein 4B: Host endoplasmic reticulum membrane; Multi-pass membrane protein (By similarity).

RNA-directed RNA polymerase NS5: Host endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Host nucleus. Note=Located in RE-associated vesicles hosting the replication complex.

Post-translational modifications:

Specific enzymatic cleavages in vivo yield mature proteins. The nascent protein C contains a C-terminal hydrophobic domain that act as a signal sequence for translocation of prM into the lumen of the ER. Mature protein C is cleaved at a site upstream of this hydrophobic domain by NS3. prM is cleaved in post-Golgi vesicles by a host furin, releasing the mature small envelope protein M, and peptide pr. Non-structural protein 2A-alpha, a C-terminally truncated form of non-structural protein 2A, results from partial cleavage by NS3. Peptide 2K acts as a signal sequence and is removed from the N-terminus of NS4B by the host signal peptidase in the ER lumen. Signal cleavage at the 2K-4B site requires a prior NS3 protease-mediated cleavage at the 4A-2K site.

RNA-directed RNA polymerase NS5 is phosphorylated on serines residues. This phosphorylation may trigger NS5 nuclear localization.

Envelope protein E and non-structural protein 1 are N-glycosylated.

Similarity:

In the N-terminal section; belongs to the class I-like SAM-binding methyltransferase superfamily. mRNA cap 0-1 NS5-type methyltransferase family.

Contains 1 helicase ATP-binding domain.

Contains 1 helicase C-terminal domain.
Contains 1 mRNA cap 0-1 NS5-type MT domain.
Contains 1 peptidase S7 domain.
Contains 1 RdRp catalytic domain.

SWISS:
P29990

Gene ID:
1494449

Database links:
[Entrez Gene: 1494449](#) Dengue virus 2

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

登革病毒(Dengue Virus, DEN)属黄病毒科(flaviviridae)又称汉坦病毒、黄病毒, 是重要的虫媒病毒之一, 是引起流行性出血热的主要原因。

www.sunlongbiotech.com