Active Recombinant DENV2 (strain Thailand/16681/1984) Envelope Protein, His-tagged

Cat. No. Envelope-11083D **Lot. No.** (See product label)

SPECIFICATION

Product Overview	DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Met 281 - Ser 677 (Accession # P29990). This protein carries a polyhistidine tag at the N-terminus. The protein is designed as a dimer.
Species	DENV2
Source	HEK293
ProteinLength	281-677 aa
Description	Dengue is a mosquito-borne viral disease widely spread all over the world transmitted by 4 serotypes of dengue virus (DENV). The symptoms range from mild dengue fever to dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS) with high mortality. Currently, most of the studies on DENV vaccines emphasize on its envelope protein which is essential for viral attachment and fusion (i.e., Sanofi's tetravalent dengue vaccine Dengvaxia). However, the vaccine of envelope protein still needs to be improved to maximize its efficiency on people never infected with DENV before, which requires more research to be conducted on the DENV envelope protein.
Form	Lyophilized from 0.22 μm filtered solution in PBS, 0.5 M Arginine, pH7.4 with trehalose as protectant.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Bio-activity	Immobilized DENV2 (strain Thailand/16681/1984) Envelope Protein, His Tag at 1 μg/mL (100 μL/well) can bind Human Anti-E(DENV) Antibody EDE2 A11, Human IgG1 | Human Kappa with a linear range of 1-39 ng/mL.
Molecular Mass	The protein has a calculated MW of 46.2 kDa. The protein migrates as 55-60 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU/μg by the LAL method/rFC method.
Purity	>90% as determined by SDS-PAGE.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Official Symbol	Envelope
Synonyms	Envelope Protein; E Protein; Genome polyprotein
UniProt ID	P29990

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