Recombinant Dengue Virus Serotype 2 Envelope Protein, His-tagged

Cat. No. DEN-171 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Dengue virus serotype 2 Envelope protein (E protein) has been manufactured in response to the unmet need for highly purified, concentrated protein for use in serological based diagnostic assays. Dengue virus serotype 2 Envelope protein is engineered in human cells using state-of-the-art expression and purification techniques. The soluble domain of the Dengue virus serotype 2 Envelope protein is expressed in HEK293 cells, and purified by IMAC and IEX chromatography.
Tag	His
Background	Dengue virus is a member of the flavivirus family, which includes Zika virus, West Nile virus and Japanese Encephalitis virus. Many of the proteins expressed by these viruses are very similar, and serological testing for these viruses can be complicated by problems of cross-reactivity. In this context, the use of highly purified antigens, that are glycosylated and folded as native proteins can be highly important in the development of accurate immunoassays. With more than one-third of the world's population living in areas at risk of transmission, dengue infection is a leading cause of illness and death in the tropics and subtropics (ref WHO for Guidelines for Diagnosis, Treatment, Prevention & Control, 2009) As many as 100 million people are infected yearly. Dengue is caused by any one of four related viruses transmitted by mosquitoes. It is a febrile illness that affects infants, young children and adults with symptoms appearing 3-14 days after the infective bite. Symptoms range from mild fever, to incapacitating high fever, with severe headache, pain behind the eyes, muscle and joint pain, and

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	rash. There is no vaccine or any specific medicine to treat dengue. Severe dengue (also known as dengue hemorrhagic fever) is characterized by fever, abdominal pain, persistent vomiting, bleeding and breathing difficulty and is a potentially lethal complication, affecting mainly children. Early clinical diagnosis and careful clinical management by trained physicians and nurses increase survival of patient. The first dengue vaccine, Dengvaxia (CYD-TDV) by Sanofi Pasteur, was first licensed in December, 2015, in Mexico. Several other vaccine candidates are in clinical or pre-clinical development
Purity	>95% pure by SDS-PAGE
Sequence Strain	Thailand/16681/84
Formulation	20mM Tris-HCl, 110mM sodium chloride, pH7.8.
Freezing	Can be frozen, but avoid multiple freeze/thaw cycles.
Storage	Short Term Storage: +4 centigrade Long Term Storage: -80 centigrade Avoid excessive mixing or shocking to prevent aggregation. Long term storage above -80 centigrade may result in aggregate formation and/or degradation.
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease

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GENE INFORMATION

Synonyms	DENV Serotype 2 Envelope

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