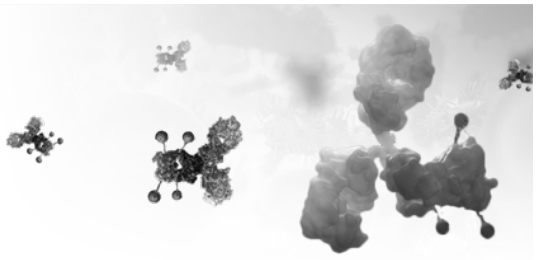

Recombinant DENV type 4 PreM/M Protein [GST] (DAG2399)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	N-terminal GST fusion protein of PreM/M (Dengue virus 4)(a.a. 6-165)
Species	DENV
Purity	> 95%, based on SDS PAGE
Conjugate	GST
Applications	WB, ELISA, immunogen
Format	Liquid/Lyophilized
Size	0.1 mg, 1 mg
Buffer	PBS with 8M Urea
Preservative	None
Storage	Before reconstitution, stable for 1 year at -20?C from the date of shipment. After reconstitution, stable for a month at 4?C.

BACKGROUND

Introduction	The DENV prM (membrane) protein, which is important in the formation and maturation of the viral particle, consists of seven antiparallel β-strands stabilized by three disulphide bonds. The glycoprotein shell of the mature DENV virion consists of 180 copies each of the E protein and M protein. The immature virion starts out with the E and prM proteins forming 90 heterodimers that give a spiky exterior to the viral particle. This immature viral particle buds into the endoplasmic reticulum and eventually travels via the secretory pathway to the Golgi apparatus.

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	As the virion passes through the trans-Golgi Network (TGN) it is exposed to low pH. This acidic environment causes a conformational change in the E protein which disassociates it from the prM protein and causes it to form E homodimers. These homodimers lie flat against the viral surface giving the maturing virion a smooth appearance. During this maturation pr peptide is cleaved from the M peptide by the host protease, furin. The M protein then acts as a transmembrane protein under the E-protein shell of the mature virion. The pr peptide stays associated with the E protein until the viral particle is released into the extracellular environment. This pr peptide acts like a cap, covering the hydrophobic fusion loop of the E protein until the viral particle has exited the cell.
Keywords	DENV; DENV PreM/M Protein; DENV PreM/M; Dengue virus; Dengue virus PreM/M; DENV-4 PreM/M; DENV-4

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