



# Recombinant Dengue Virus Serotype 1 virus-like particles antigen (DAGC016)

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

## PRODUCT INFORMATION

<b>Product Overview</b>	Recombinant Dengue Virus serotype 1(Puerto Rico/US/BID-V853/1998) virus-like particles consisting of Envelope, pre-Membrane and Membrane protein produced in mammalian HEK293 cells. The C terminal 20% of the DENV E protein was replaced by the corresponding Japanese Encephalitis Virus SA-14 sequence(Envelope protein amino acids 399-497). The replaced sequence corresponds to the transmembrane and intraparticle portion of the protein.
<b>Species</b>	DENV
<b>Purity</b>	> 95% pure by SDS-PAGE
<b>Conjugate</b>	Unconjugated
<b>Molecular Weight</b>	Non-reducing SDS-PAGE gel showing purified Dengue virus serotype 1 virus-like particles; envelope protein (E) at approx. 55kDa, and prM protein running at approx. 18kD.
<b>Stability</b>	At 4°C:1 week. At -80°C: 1 year
<b>Format</b>	Liquid
<b>Concentration</b>	0.56mg/ml
<b>Size</b>	100 µg
<b>Buffer</b>	10mM sodium phosphate, 20mM sodium citrate, 154mM sodium chloride, pH7.4
<b>Preservative</b>	None
<b>Storage</b>	Short term: 2-8°C; Long term: -80°C. Avoid excessive mixing or shocking to prevent aggregation. Long term storage above -80°C may result in aggregate formation.
<b>Ship</b>	Dry ice

# BACKGROUND

**Introduction**

Dengue virus (DEN) is a small single-stranded RNA virus comprising four distinct serotypes (DEN-1 to -4). These closely related serotypes of the dengue virus belong to the genus Flavivirus, family Flaviviridae. The mature particle of the dengue virus is spherical with a diameter of 50nm containing multiple copies of the three structural proteins, a host-derived membrane bilayer and a single copy of a positive-sense, single-stranded RNA genome. The genome is cleaved by host and viral proteases in three structural proteins (capsid, C, prM, the precursor of membrane, M, protein and envelope, E) and seven nonstructural proteins (NS).

**Keywords**

Dengue Virus Serotype 1 virus-like particles; DENV Type 1 VLP; DENV Type 1; DENV; VLP; Dengue Virus