

12-8125: Anti-Dengue Virus (Clone: DENV-2D22)

Clonality :	Monoclonal
Clone Name :	DENV-2D22
Application :	ELISA
Alternative Name :	DENV
Isotype :	Human IgG1
Immunogen Information :	Sequenced from human survivors of who had experienced a DENV infection during travel to an endemic region.

Description

Reactivity Species : Dengue-Virus
Expression Host : HEK-293
Endotoxin Level : ≤ 1.0 EU/mg as determined by the LAL method

Specificity : DENV-2D22 activity is DENV-2 specific and directed against the E homodimer at the DIII⁺ glycan loop with serotype specificity on one E protein and DII around the fusion loop on the other E protein.

Antibody clone DENV-2D22 was identified as strongly neutralizing, capable of inhibiting infection of DENV-2, and able to bind intact DENV-2 but not DIII or recombinant E. DENV-2D22 also did not bind to E protein by immunoblot. DENV-2D22 is E protein specific based on an escape mutant of DIII at R323G and recognizes a complex quaternary epitope displayed on the intact virus formed by DIII and DII on two different monomers within a single dimer. When the entire DENV-2 DIII region was inserted into the backbone sequence of a DENV-4 molecular clone to create a recombinant virus, DENV-2D22 was capable of binding and neutralization. Only five contact residues differ between DENV-2 and -4 in DIII, and these are likely critical for binding and neutralization.

DENV-2D22 had no detectable ability to enhance DENV infection at a typical concentration range in a Ab-dependent enhancement assay, was capable of binding and neutralizing chimeric yellow fever-dengue vaccine virus serotype 2, and blocked viral infection of viremic blood for *Ae. aegypti*.

Product Info

Amount :	100 µg
Purification :	≥95% monomer by analytical SEC
Content :	5.0 mg/ml Formulation : This recombinant monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added.
Storage condition :	Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one year. For longer term storage, aseptically aliquot in working volumes without diluting and store at -70°C. Avoid Repeated Freeze Thaw Cycles.