Dengue Virus Type 1-4 Monoclonal Antibody
(D1-11(3))

**Catalog Number**
MA1-27093

**Details**
- **Size**: 250 µg
- **Host/Isotope**: Mouse / IgG2a
- **Class**: Monoclonal
- **Type**: Antibody
- **Clone**: D1-11(3)
- **Immunogen**: Mixture of dengue 1, 2, 3 and 4.
- **Conjugate**: Unconjugated
- **Form**: Liquid
- **Concentration**: 1 mg/ml
- **Purification**: Protein A
- **Storage buffer**: PBS, pH 7.2
- **Contains**: 0.05% sodium azide
- **Storage Conditions**: 4°C, do not freeze

**Species Reactivity**
- **Tested species reactivity**: Virus
- **Published species reactivity**: Non-human primate, Virus, Not Applicable

**Tested Applications**
- **Dot blot (DB)**: Assay Dependent
- **ELISA (ELISA)**: Assay Dependent
- **Immunocytochemistry (ICC)**: Assay-dependent
- **Immunofluorescence (IF)**: Assay-dependent
- **Western Blot (WB)**: 1 µg/ml

**Published Applications**
- **Western Blot (WB)**: See 2 publications below
- **ELISA (ELISA)**: See 3 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

**Published Applications**
- **Western Blot (WB)**: See 2 publications below
- **ELISA (ELISA)**: See 3 publications below

**Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.**

**Product specific information**
MA1-27093 detects Dengue Virus 1+2+3+4 from all dengue serotype samples.

MA1-27093 has been successfully used in ELISA, dot blot and Western blot procedures.

The MA1-27093 immunogen is a mixture of dengue 1, 2, 3 and 4.

**Background/Target Information**
Dengue fever and dengue hemorrhagic fever are acute febrile diseases, found in the tropics and Africa. Caused by one of four closely related virus serotypes of the genus Flavivirus, family Flaviviridae, each serotype is sufficiently different that there is no cross-protection and epidemics caused by multiple serotypes (hyperendemicity) can occur. Dengue is transmitted to humans by the Aedes aegypti (rarely Aedes albopictus) mosquito, which feeds during the day.

Product Images For Dengue Virus Type 1-4 Monoclonal Antibody (D1-11(3))

Dengue Virus Type 1-4 Antibody (MA1-27093) in IF

Immunofluorescent analysis of Dengue Virus Type 1-4 showing staining in the cytoplasm of BHK-21 cells. BHK-21 cells mock (left) and infected with Dengue virus 1 (right) were fixed in MeOH and stained using a Dengue Virus Type 1-4 monoclonal antibody (Product # MA1-27093) diluted at 1:500. Blue: Hoechst 33342 staining.

Dengue Virus Type 1-4 Antibody (MA1-27093) in IF

Immunofluorescent analysis of Dengue Virus Type 1-4 showing staining in the cytoplasm of BHK-21 cells. BHK-21 cells mock (left) and infected with Dengue virus 2 (right) were fixed in MeOH and stained using a Dengue Virus Type 1-4 monoclonal antibody (Product # MA1-27093) diluted at 1:500. Blue: Hoechst 33342 staining.

Dengue Virus Type 1-4 Antibody (MA1-27093) in IF

Immunofluorescent analysis of Dengue Virus Type 1-4 showing staining in the cytoplasm of BHK-21 cells. BHK-21 cells mock (left) and infected with Dengue virus 3 (right) were fixed in MeOH and stained using a Dengue Virus Type 1-4 monoclonal antibody (Product # MA1-27093) diluted at 1:500. Blue: Hoechst 33342 staining.

Dengue Virus Type 1-4 Antibody (MA1-27093) in IF

Immunofluorescent analysis of Dengue Virus Type 1-4 showing staining in the cytoplasm of BHK-21 cells. BHK-21 cells mock (left) and infected with Dengue virus 4 (right) were fixed in MeOH and stained using a Dengue Virus Type 1-4 monoclonal antibody (Product # MA1-27093) diluted at 1:500. Blue: Hoechst 33342 staining.
## PubMed References For Dengue Virus Type 1-4 Monoclonal Antibody (D1-11(3))

### 2 Western Blot References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable / 1:500</td>
<td>MA1-27093 was used in western blot to study the interaction of dengue virus 2 and 4 envelope proteins with actin.</td>
</tr>
<tr>
<td>Not Applicable / 1:1000</td>
<td>MA1-27093 was used in western blot to study the reduction in virus output by U937 monocytes infected with dengue virus by the induction of autophagy.</td>
</tr>
</tbody>
</table>

**PloS one (Mar 2016; 11: null)**

"Actin Interacts with Dengue Virus 2 and 4 Envelope Proteins."
Author(s): Jitoboam K, Phoaakrup N, Libsittikul S, Thepparit C, Roytrakul S, Smith DR
PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0151951

**Virology (Sep 2011; 418: 74)**

"Induced autophagy reduces virus output in dengue infected mononcytic cells."
Author(s): Panyasrivanit M, Greenwood MP, Murphy D, Isidoro C, Aevarakul P, Smith DR
PubMed Article URL: http://dx.doi.org/10.1016/j.virol.2011.07.010

### 3 ELISA References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-human primate / Not Cited</td>
<td>MA1-27093 was used in ELISA to characterize the antibody binding epitopes on domain III of the dengue 2 envelope glycoprotein.</td>
</tr>
<tr>
<td>Non-human primate / Not Cited</td>
<td>MA1-27093 was used in ELISA to study the interaction of dengue virus 3 envelope protein with domain III.</td>
</tr>
<tr>
<td>Virus / Not Cited</td>
<td>MA1-27093 was used in ELISA to map the epitopes of five mature dengue virus-specific monoclonal antibodies.</td>
</tr>
</tbody>
</table>

**Virology (Nov 2010; 407: 237)**

"Mutations of an antibody binding energy hot spot on domain III of the dengue 2 envelope glycoprotein exploited for neutralization escape."
Author(s): Gromowski GD, Roehrig JT, Diamond MS, Lee JC, Pitcher TJ, Barrett AD
PubMed Article URL: http://dx.doi.org/10.1016/j.virol.2010.06.044

**Virology (Feb 2009; 384: 16)**

"Characterization of dengue complex-reactive epitopes on dengue 3 virus envelope protein domain III."
Author(s): Matsui K, Gromowski GD, Li L, Schuh AJ, Lee JC, Barrett AD
PubMed Article URL: http://dx.doi.org/10.1016/j.virol.2008.11.013

**Journal of virology (Sep 2008; 82: 8828)**

"Characterization of dengue virus complex-specific neutralizing epitopes on envelope protein domain III of dengue 2 virus."
Author(s): Gromowski GD, Barrett ND, Barrett AD
PubMed Article URL: http://dx.doi.org/10.1128/JVI.00606-08