WHAT IS CLAIMED IS:

1. An isolated monoclonal antibody, comprising:

(a) a heavy chain having an amino acid sequence of SEQ. ID NO. 1; and

(b) a light chain having an amino acid sequence of SEQ ID NO. 2,

wherein the heavy chain comprises an IgA Fc domain.

2. The isolated monoclonal antibody of claim 1, wherein the IgA Fc domain is an IgA1 Fc domain.

3. The isolated monoclonal antibody of claim 1, wherein the antibody is chimeric or humanized.

4. The isolated monoclonal antibody of claim 1, wherein the IgA Fc domain is an IgA2 Fc domain.

5. An isolated monoclonal antibody for targeting a fusion loop epitope of dengue virus, comprising:

(a) a heavy chain having an amino acid sequence having at least 95%, at least 99%, sequence identity to SEQ. ID NO. 1; and,

(b) a light chain having an amino acid sequence having at least 95%, at least 99%, sequence identity to SEQ ID. NO. 2.

6. The isolated monoclonal antibody of claims 1-4, wherein the isolated monoclonal antibody binds a fusion loop epitope (FLE) of a Dengue virus.

7. An isolated nucleic acid encoding a heavy chain of a monoclonal antibody, wherein the heavy chain comprises an amino acid sequence of SEQ. ID NO. 1.

8. An isolated complementary deoxynucleotide (cDNA) sequence encoding a heavy chain comprising an amino acid sequence having at least 95%, or at least 99% sequence identity to SEQ ID NO: 1.

9. An isolated complementary deoxynucleotide (cDNA) sequence encoding a light chain comprising a nucleic acid sequence of SEQ ID NO: 2.

10. Use of a therapeutically effective amount of the monoclonal antibody of any one of claims 1-6 in the manufacture of a medicament for preventing or treating a flavivirus infection in a subject.

11. Use of a therapeutically effective amount of a monoclonal antibody of any one of claims 1–6, in the manufacture of a medicament for preventing or treating antibody-dependent enhancement of a viral infection, wherein the IgA Fc domain is formed by class-switch recombination.

12. The use of claim 11, wherein the viral infection is any one of respiratory syncytial virus (RSV), influenza, and coronavirus infection, or a combination thereof.

13. The use of claim 10, wherein the flavivirus infection is a Zika virus or a dengue virus.

14. The use of claim 11, wherein the therapeutically effective amount of the monoclonal antibody of:

a) a monoclonal antibody encoded by a DNA of claim 7;

b) a cDNA of claim 8 or 9; or

c) a monoclonal antibody of any one of claims 1-6, is to be administered.

15. The use of claim 14, wherein the monoclonal antibody is to be disposed with a serum comprising one or more additional antibodies or fragments thereof directed against dengue virus or bind one or more epitopes of dengue virus.

16. The use of claim 11, wherein a concentration of antibodies characterized as IgA in a serum comprising one or more additional antibodies is to be increased.

17. The use of claim 11, wherein the antibody is a wild-type IgA isoform that binds dengue protein E.

18. The use of claim 11, wherein the antibody is synthetic, formed by recombinant technology, or characterized as isolated.

19. The use of Claim 11, wherein the monoclonal antibody is an IgA isoform.

20. The use of claim 19, wherein the monoclonal antibody comprises an Fc region characterized as IgA Fc domain; and wherein the Fc region characterized as an IgA Fc domain comprises an amino acid sequence between S31 and Y475 of SEQ ID NO. 1, an amino acid segment between G51 and Y475 of SEQ ID NO: 1, an amino acid sequence between L101 and Y475 of SEQ ID NO: 1, or an amino acid sequence between A181 and Y475 of SEQ ID NO: 1, wherein SEQ ID NO: 1 is used for numbering.