

antibody response. Immune volunteers are expected to remain well. Measures of their pre-challenge immune status or immune activation intra-challenge may identify correlates of protection.

6. The method of claim 1, wherein the attenuated viruses administered are formulated in a dose of  $10^2$  to  $10^6$  PFU/ml.

7. The method of claim 1, wherein the attenuated viruses are administered subcutaneously.

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SEQUENCE LISTING

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<213> ORGANISM: Artificial Sequence

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<223> OTHER INFORMATION: primer corresponding to region of exon of human granzyme B designed for polymerase chain reaction

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What is claimed is:

1. A method for stimulating dengue virus specific immune response, which comprises administering to an individual an immunologically sufficient amount of two or more attenuated viruses chosen from the group consisting of a dengue-1 (DEN-1) virus having the sequence of DEN-1 strain 45AZ5 PDK-27 having the ATCC accession number PTA-4810, a dengue-2 (DEN-2) virus having the sequence of DEN-2 strain S16803 PDK-50 having the ATCC accession number VR-2653, a dengue-3 (DEN-3) virus having the sequence of DEN-3 strain CH53489 PDK-20 having the ATCC accession number VR-2647, and a dengue-4 (DEN-4) virus having the sequence of DEN-4 strain 341750 PDK-6 having the ATCC accession number PTA-4811, and a physiologically acceptable vehicle.

2. The method of claim 1, wherein the attenuated virus is administered parenterally.

3. The method of claim 1, wherein the attenuated virus is administered intranasally.

4. The method of claim 1, which comprises administering to an individual an immunologically sufficient amount of a dengue-1 (DEN-1) virus having the sequence of DEN-1 strain 45AZ5 PDK-27 having the ATCC accession number PTA-4810, a dengue-2 (DEN-2) virus having the sequence of DEN-2 strain S16803 PDK-50 having the ATCC accession number VR-2653, a dengue-3 (DEN-3) virus having the sequence of DEN-3 strain CH53489 PDK-20 having the ATCC accession number VR-2647, and a dengue-4 (DEN-4) virus having the sequence of DEN-4 strain 341750 PDK-6 having the ATCC accession number PTA-4811, and a physiologically acceptable vehicle.

5. The method of claim 1, which further comprises administering an adjuvant to enhance the immune response.

8. A method for stimulating dengue virus specific immune response, which comprises administering to an individual an immunologically sufficient amount of two or more attenuated viruses chosen from the group consisting of a dengue-1 (DEN-1) virus having the sequence of DEN-1 strain 45AZ5 PDK-27 having the ATCC accession number PTA-4810, a dengue-2 (DEN-2) virus having the sequence of DEN-2 strain S16803 PDK-50 having the ATCC accession number VR-2653, a dengue-3 (DEN-3) virus having the sequence of DEN-3 strain CH53489 PDK-20 having the ATCC accession number VR-2647, and a dengue-4 (DEN-4) virus having the sequence of DEN-4 strain 341750 PDK-20 having the ATCC accession number VR-2652, and a physiologically acceptable vehicle.

9. The method of claim 8, which comprises administering to an individual an immunologically sufficient amount of a dengue-1 (DEN-1) virus having the sequence of DEN-1 strain 45AZ5 PDK-27 having the ATCC accession number PTA-4810, a dengue-2 (DEN-2) virus having the sequence of DEN-2 strain S16803 PDK-50 having the ATCC accession number VR-2653, a dengue-3 (DEN-3) virus having the sequence of DEN-3 strain CH53489 PDK-20 having the ATCC accession number VR-2647, and a dengue-4 (DEN-4) virus having the sequence of DEN-4 strain 341750 PDK-20 having the ATCC accession number VR-2652, and a physiologically acceptable vehicle.

10. A method for stimulating dengue virus specific immune response, which comprises administering to an individual an immunologically sufficient amount of two or more attenuated viruses chosen from the group consisting of a dengue-1 (DEN-1) virus having the sequence of DEN-1 strain 45AZ5 PDK-20 having the ATCC accession number VR-2648, a dengue-2 (DEN-2) virus having the sequence of DEN-2 strain S16803 PDK-50 having the ATCC accession