WHAT IS CLAIMED IS:

1. A method of detecting an antibody against Japanese encephalitis virus (JEV) or Zika virus (ZIKV) in a biological sample comprising:

mixing the biological sample with a recombinant baculovirus having a viral protein of JEV or ZIKV expressed thereon, wherein the viral protein is a combination of pre-M and E; and

detecting a complex formed between an antibody against the JEV or ZIKV in the biological sample and the recombinant baculovirus of claim 1 in an immunological assay.

2. The method of claim 1, wherein the antibody is an IgM or IgG.

3. The method of claim 2, wherein the immunological assay is an enzyme-linked immunosorbent assay (ELISA).

4. The method of claim 3, wherein the biological sample is selected from the group consisting of a whole blood sample, a plasma sample, a serum sample, a urine sample, a mucus sample, and purified or filtered forms thereof.