


Development of a reverse genetics system for Japanese encephalitis virus strain SA14-14-2

June 2019 · *Virus Genes* 55(2) ·

DOI: [10.1007/s11262-019-01674-y](https://doi.org/10.1007/s11262-019-01674-y)

Project: [Characterization of Reston virus infection in ferrets](#)

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Japanese encephalitis virus SA14-14-2 (JEV SA14-14-2) is a widely used vaccine in China and other southeastern countries to prevent Japanese encephalitis in children. In this study, a stable infectious cDNA clone of JEV SA14-14-2 with a low copy number pACYC177 vector dependent on the T7 promoter and T7 terminator was developed. Two introns were inserted into the capsid gene and envelope gene of JEV cDNA for gene stability. Hepatitis delta virus ribozyme (HDVr) was engineered into the 3' UTR cDNA of JEV for authentic 3' UTR transcription. **The rescued virus showed biological properties indistinguishable from those of the parent strain (JEV SA14-14-2).** The establishment of a JEV SA14-14-2 reverse genetics system lays the foundation for the further development of other flavivirus vaccines and viral pathogenesis studies.

32,682

Reads ⓘ



6,019

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46

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3,338

Total Research Interest ⓘ



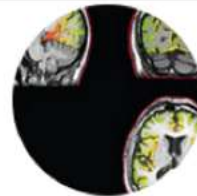
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