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(54) Title: SYNTHETIC SELF-REPLICATING RNA VECTORS ENCODING CRISPR PROTEINS AND USES THEREOF

(57) Abstract: Synthetic, noninfectious, self-replicating RNA vectors that encode CRISPR proteins are provided. Each self-replicating RNA vector comprises a sequence encoding a plurality of non-structural replication complex proteins from an alphavirus and a sequence encoding a CRISPR protein. Also provided are methods for genome editing in which a synthetic self-replicating RNA vector is transfected into cells along with at least one corresponding guide RNA.

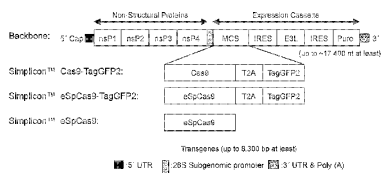


FIG. 1A

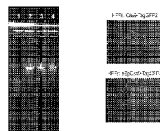


FIG. 1B

FIG. 1C

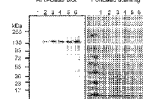


FIG. 1D

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