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(54) **GENETIC MANIPULATIONS WITH RECOMBINANT DNA COMPRISING SEQUENCES DERIVED FROM RNA VIRUS**

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(30) **Foreign Application Priority Data**

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435/252.3; 800/205

(58) **Field of Search** 435/69.1, 172.3,
435/240.4, 252.3; 800/205

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(57) **ABSTRACT**

The invention relates to genetic manipulations of eukaryotic organisms, with recombinant DNA comprising RNA virus derived sequences for protecting such organisms against RNA viruses or enabling inducible or tissue-specific production of foreign proteins/peptides or RNAs. One embodiment of the recombinant DNA according to the invention comprises recombinant DNA, comprising two, 12–1250 base pair long, inverted repeat nucleotide sequences with therebetween at least one nucleotide sequence which is derived from RNA virus which for its replication is dependent upon a viral RNA/RNA polymerase, said RNA virus derived sequence comprising at least cis elements for replication but no gene that codes for viral RNA/RNA polymerase and no gene that codes for viral coat protein. The invention also relates to eukaryotic or prokaryotic cells or organisms which incorporate the recombinant DNA according to the invention. Further the invention relates to a method of protecting such cells or organisms by genetically incorporating recombinant DNA according to the invention.

14 Claims, 8 Drawing Sheets

