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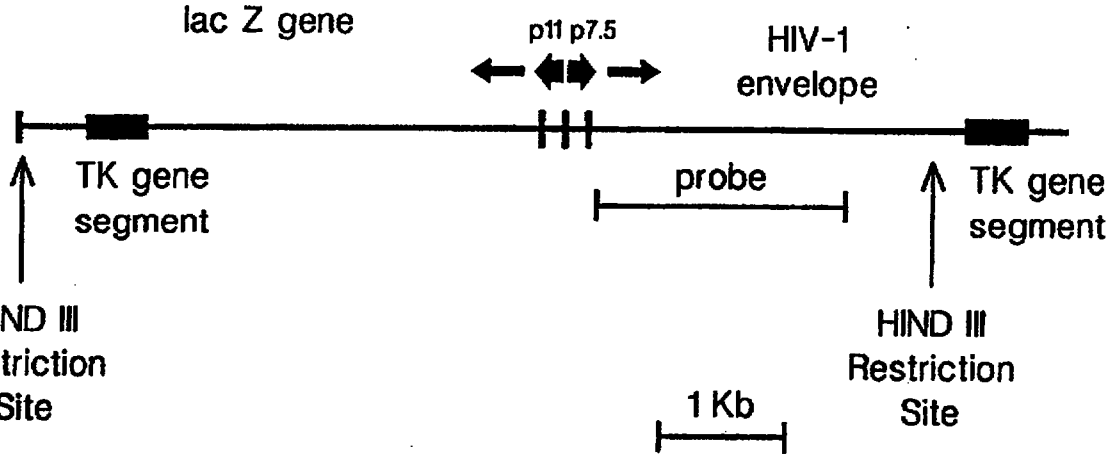
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(57) Abstract

Polyenv vaccines are provided that comprise mixtures of at least 4 to about 10.000 different recombinant viruses that each express a different HIV *env* variant or a portion thereof containing both constant and variable regions, as well as methods of making and using such polyenv vaccines and viruses, including the use of the polyenv vaccine, in live, attenuated or inactivated form, for prophylaxis or treatment of HIV infection. The viral vaccines of the invention are optimally combined with a recombinant HIV *env* booster, or a recombinant HIV *env* gene DNA priming or boosting vaccine.