

Title (en)
VACCINES COMPRISING SYNTHETIC GENES

Title (de)
SYNTHETISCHE GENE ANTHALTETND VAKZINE

Title (fr)
VACCINS COMPRENANT DES GENES DE SYNTHESE

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Application
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Abstract (en)
[origin: WO9748370A2] Synthetic polynucleotides comprising a DNA sequence encoding a peptide or protein are provided. The DNA sequence of the synthetic polynucleotides comprise codons optimized for expression in a nonhomologous host. The invention is exemplified by synthetic DNA molecules encoding HIV env as well as modifications of HIV env. The codons of the synthetic molecules include the projected host cell's preferred codons. The synthetic molecules provide preferred forms of foreign genetic material. The synthetic molecules may be used as a polynucleotide vaccine which provides immunoprophylaxis against HIV infection through neutralizing antibody and cell-mediated immunity. This invention provides polynucleotides which, when directly introduced into a vertebrate in vivo, including mammals such as primates and humans, induces the expression of encoded proteins within the animal.

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