Claims

1. A composition comprising

- 2, 3, 4, 5, 6 or 7 peptides, or one or more expression vector(s) that induce(s) expression of said 2, 3, 4, 5, 6 or 7 peptides in vivo, the peptides having from 9 to 40 amino acid residues, each one comprising at least one of the epitopes of sequences SEQ ID NO: 1-7, and each peptide comprising at least one different epitope with respect to the others; or
- at least one peptide, or an expression vector that induces expression of said at least one peptide *in vivo*, said peptide having from 9 to 40 amino acids residues and comprising 2, 3 or 4 of the epitopes of sequences SEQ ID NO: 1-7;

and a pharmaceutically acceptable vehicle or excipient.

2. The composition of claim 1, comprising or inducing expression of one or more peptides comprising the epitopes of sequence SEQ ID NO: 1 and/or 6.

3. The composition of claim 1 or 2, comprising or inducing expression of 3, 4, 5, 6, or the 7 peptides comprising the epitopes of sequences SEQ ID NO: 1 to 7.

4. The composition of claim 1, comprising or inducing expression of 2 or 3 of the gag epitopes of sequences SEQ ID NO: 1, 2 and 4.

5. The composition of claim 4, further comprising or inducing expression of the epitope of sequence SEQ ID NO: 6.

6. The composition of claim 1, wherein each peptide of 9 to 40 amino acid residues comprises one specific epitope of SEQ ID NO: 1, 2, 3, 4, 5, 6 or 7.

7. The composition of claim 1 or 6, wherein the peptide(s) comprise(s) 9 to 40 consecutive amino acid residues of an HERV gag or pol including at least one of said epitopes of sequence SEQ ID NO: 1 to 7.

8. The composition of any one of claims 1 to 3 or 6 to 7, wherein the peptide(s) comprise(s) 13, 14, 15, 16, 17, or 18, consecutive amino acid residues of an HERV gag or pol including at least one of said epitopes of sequence SEQ ID NO: 1 to 7.

9. The composition of claim 1, wherein the peptides are selected from the group consisting of SEQ ID NO: 8-14 and the composition comprises or induces expression of 2, 3, 4, 5, 6 or 7 of them.

10. The composition of claim 1, wherein the peptides consist of 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 consecutive amino acid residues of sequences SEQ ID NO: 8-14, including the 9-mer epitope, and the composition comprises or induces expression of 2, 3, 4, 5, 6 or 7 of them.

11. The composition of claim 1, comprising or inducing expression of 2 or 3 of the gag peptides of sequences SEQ ID NO: 8, 9 and 10, or a fragment of 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 consecutive amino acid residues of sequences SEQ ID NO: 8-10, including the 9-mer epitope.

12. The composition of claim 11, further comprising or inducing expression of the peptide of sequence SEQ ID NO: 13, or a fragment of 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 consecutive amino acid residues of sequence SEQ ID NO: 13, including the 9-mer epitope.

13. The composition of claim 1, comprising or inducing expression of 2 or 3 of the pol peptides of sequences SEQ ID NO: 11, 12 and 13, or a fragment of 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 consecutive amino acid residues of sequences SEQ ID NO: 11-13, including the 9-mer epitope.

14. Vaccine or immunogenic composition comprising the composition of any one of claims 1 to 13 and a pharmaceutically acceptable vehicle or excipient, and preferably an adjuvant.

15. Composition comprising Cytotoxic T Lymphocytes (CTLs) of a patient treated with a peptide as described in any one of claims 1-13, or comprising T-cell Receptor

(TCR) engineered T cells recognizing a peptide as described in any one of claims 1-13, and a pharmaceutical vehicle.

16. Composition according to any one of claims 1 to 15, for use in treating cancer, in particular breast cancer, including triple negative breast cancer, ovarian cancer, melanoma, sarcoma, teratocarcinoma, bladder cancer, lung cancer (non small cell lung carcinoma and small cell lung carcinoma), head and neck cancer, colo-rectal cancer, glioblastoma and leukemias.