WHAT IS CLAIMED IS:

1. A tumor antigen peptide (TAP) comprising one of the amino acid sequences set forth in any one of SEQ ID NOs: 6, 1-5 and 7-23.

2. The TAP of claim 1, wherein said TAP binds to (a) an HLA-A*02:01 molecule and comprises the sequence of SEQ ID NO: 6; (b) an HLA-A*03:01 molecule and comprises the sequence of SEQ ID NO:1, 11, or 14; (c) an HLA-A*03:02 molecule and comprises the sequence of SEQ ID NOs:3, 5, 7, 16 or 23; (d) an HLA-A*11:01 molecule and comprises the sequence of SEQ ID NO:9 or 18; (e) an HLA-A*30:01 molecule and comprises the sequence of SEQ ID NO:19, 20 or 23; (f) an HLA-A*32:01 molecule and comprises the sequence of SEQ ID NO:8; (g) an HLA-B*07:02 molecule and comprises the sequence of SEQ ID NO: 2 or 21; (h) an HLA-B*13:02 molecule and comprises the sequence of SEQ ID NO: 13; (i) an HLA-B*27:05 molecule and comprises the sequence of SEQ ID NO: 4; (j) an HLA-B*52:01 molecule and comprises the sequence of SEQ ID NO: 10, 12, or 15; or (k) an HLA-C*06:02 molecule and comprises the sequence of SEQ ID NO: 17.

3. The TAP of claim 1 or 2, wherein the TAP is encoded by a sequence located a non-protein coding region of the genome, wherein said non-protein coding region of the genome is an untranslated transcribed region (UTR), an intron, an intergenic region, or a long non-coding RNA.

4. A combination comprising at least two of the TAPs defined in any one of claims 1-3.

5. A synthetic long peptide (SLP) comprising at least one of the amino acid sequences defined in claim 1.

6. A nucleic acid encoding the TAP of any one of claims 1 to 3, the combination of claim 4, or the SLP of claim 5.

7. The nucleic acid of claim 6, which is an mRNA.

8. A vesicle or particle comprising the TAP, nucleic acid, combination or SLP of any one of claims 1 to 7.

9. The vesicle or particle of claim 8, wherein the vesicle is a lipid nanoparticle (LNP).

10. The vesicle or particle of claim 8 or 9, which comprises a cationic lipid.

11. A composition comprising the TAP, nucleic acid, combination or SLP of any one of claims 1 to 7, or the vesicle or particle of any one of claims 8-10, and a pharmaceutically acceptable carrier.

12. A vaccine comprising the TAP, nucleic acid, combination or SLP of any one of claims 1 to 7, the vesicle or particle of any one of claims 8-10, or the composition of claim 11, and an adjuvant.

13. An isolated cell expressing at its surface major histocompatibility complex (MHC) class I molecules comprising the TAP of any one of claims 1-3 or the combination of claim 4 in their peptide binding groove.

14. A T-cell receptor (TCR), an antibody or an antigen-binding fragment thereof that specifically recognizes MHC class I molecules expressed at the surface of the cell of claim 13.

15. An isolated cell expressing at its cell surface the TCR of claim 14.

16. A cell population comprising at least 0.5% of the isolated cell as defined in claim 15.

17. Use of:

(a) a TAP comprising one of the amino acid sequences defined in SEQ ID NOs:1-23 and 25-50, or a synthetic long peptide (SLP) comprising at least one of the sequences set forth in SEQ ID NOs:1-23 and 25-50;

(b) at least one nucleic acid encoding the TAP, combination thereof or SLP defined in (a);

(c) a vesicle or particle comprising the TAP, combination thereof or SLP defined in (a) or the at least one nucleic acid defined in (b);

(d) a composition comprising the TAP, combination thereof or SLP defined in (a), the at least one nucleic acid defined in (b), or the vesicle or particle defined in (c), and a pharmaceutically acceptable carrier;

(e) a vaccine comprising the TAP, combination thereof or SLP defined in (a), the at least one nucleic acid defined in (b), the vesicle or particle defined in (c), or the composition defined in (d), and an adjuvant;

(f) a cell expressing at its surface major histocompatibility complex (MHC) class I molecules comprising the TAP or combination thereof defined in (a) in their peptide binding groove;

(g) a cell expressing at its cell surface a T-cell receptor (TCR) that specifically recognizes MHC class I molecules expressed at the surface of the cell defined in (f); or

(h) a soluble TCR, an antibody or an antigen-binding fragment thereof that specifically binds to the MHC class I molecules expressed at the surface of the cell defined in (f);

for the manufacture of a medicament for treating colorectal cancer in a subject.

18. The use of claim 17, wherein the TAP is as defined in any one of claims 1 to 3, the combination is as defined in claim 4, the SLP is as defined in claim 5; the nucleic acid is as

defined in claim 6 or 7, the vesicle is as defined in any one of claims 8-10, the composition is as defined in claim 11, the vaccine is as defined in claim 12, the cell is as defined in claim 13 or 15, the cell population is as defined in claim 16, and/or the antibody or antigen-binding fragment is as defined in claim 14.

19. The use of claim 18, wherein the CRC is colon cancer.

20. The use of any one of claims 17-19, wherein the medicament is for use with at least one additional antitumor agent or therapy to the subject.

21. The use of claim 20, wherein said at least one additional antitumor agent or therapy is a chemotherapeutic agent, immunotherapy, an immune checkpoint inhibitor, radiotherapy or surgery.