

CLAIMS

1. A composition comprising at least two different complexes of a purified stress protein bound to an antigenic peptide, wherein each complex comprises a different antigenic peptide comprising:
 - a) an N-terminal portion of 21-31 amino acids in length comprising at least one mutant MHC binding epitope from a cancer cell; and
 - b) a C-terminal portion of 11 amino acids in length comprising a heat shock protein binding sequence, wherein the amino acid sequence of the C-terminal portion consists of the amino acid sequence of SEQ **ID** NO: 477;

wherein at least one of the antigenic peptides in the composition comprises a tumor-specific missense mutation.
2. The composition of claim 1, wherein the N-terminal portion of at least one of the antigenic peptides is 27-31 amino acids in length.
3. The composition of claim 1, wherein the N-terminal portion of at least one of the antigenic peptides is 27-31 amino acids in length and the tumor-specific missense mutation is at amino position 11, 12, 13, 14, 15, 16, 17, 18, or 19 of the N-terminal portion.
4. The composition of claim 1, wherein the stress protein is selected from the group consisting of hsc70, hsp70, hsp90, hsp110, grp170, gp96, calreticulin, and combinations of two or more thereof.
5. The composition of claim 4, wherein the stress protein is hsc70.

6. The composition of claim 1, wherein the amount of stress protein in the composition is about 10 µg - 600 µg.
7. The composition of claim 6, wherein the amount of stress protein in the composition is about 240 µg.
8. The composition of claim 1, wherein the molar ratio of stress protein to antigenic peptide in the composition is selected from the group consisting of about 1:1, 1:2, 1:4, 1:5, 1:10, 1:20, and 1:50.
9. The composition of claim 8, wherein the molar ratio of stress protein to antigenic peptide in the composition is about 1:1.
10. The composition of claim 1, wherein the composition comprises at least 5 different antigenic peptides.
11. The composition of claim 1, wherein the composition comprises at least 10 different antigenic peptides.
12. The composition of claim 1, wherein the composition comprises at least 20 different antigenic peptides.
13. The composition of claim 1, further comprising an adjuvant.
14. The composition of claim 13, wherein the adjuvant comprises a saponin or an immunostimulatory nucleic acid.
15. The composition of claim 13, wherein the adjuvant comprises QS-21.
16. The composition of claim 13, wherein the adjuvant comprises about 1µg - 200 µg of QS-21.
17. The composition of claim 13, wherein the adjuvant comprises about 10 µg, 25 µg, or 50 µg of QS-21.
18. The composition of claim 13, wherein the adjuvant comprises about 50 µg of QS-21.
19. The composition of claim 18, wherein the amount of stress protein in the composition is about 240 µg.

20. The composition of claim 19, wherein the molar ratio of stress protein to antigenic peptide in the composition is about 1:1.
21. Use of an effective amount of the composition of claim 1 in the manufacture of a medicament for inducing a T cell response in a subject to a mutant MHC binding epitope from a cancer cell, wherein the medicament is to be administered to the subject, such that a T cell response to at least one mutant MHC binding epitope in the composition is induced.