

CLAIM(S):

1. An isolated or purified T cell receptor (TCR) having antigenic specificity for a human p53^{R175H} or human p53^{Y220C} amino acid sequence, wherein the TCR comprises the amino acid sequences of:

- (1) all of SEQ ID NOs: 3-8;
- (2) all of SEQ ID NOs: 14-19;
- (3) all of SEQ ID NOs: 25-30;
- (4) all of SEQ ID NOs: 36-41;
- (5) all of SEQ ID NOs: 47-52;
- (6) all of SEQ ID NOs: 58-63;
- (7) all of SEQ ID NOs: 69-74;
- (8) all of SEQ ID NOs: 80-85; or
- (9) all of SEQ ID NOs: 131-136.

2. The TCR of claim 1, wherein the TCR comprises the amino acid sequences of:

- (1) both of SEQ ID NOs: 9 and 10;
- (2) both of SEQ ID NOs: 20 and 21;
- (3) both of SEQ ID NOs: 31 and 32;
- (4) both of SEQ ID NOs: 42 and 43;
- (5) both of SEQ ID NOs: 53 and 54;
- (6) both of SEQ ID NOs: 64 and 65;
- (7) both of SEQ ID NOs: 75 and 76;
- (8) both of SEQ ID NOs: 86 and 87;
- (9) both of SEQ ID NOs: 137 and 138;
- (10) both of SEQ ID NOs: 142 and 143;
- (11) both of SEQ ID NOs: 144 and 145;
- (12) both of SEQ ID NOs: 146 and 147;
- (13) both of SEQ ID NOs: 148 and 149;
- (14) both of SEQ ID NOs: 150 and 151;
- (15) both of SEQ ID NOs: 152 and 153;
- (16) both of SEQ ID NOs: 154 and 155;
- (17) both of SEQ ID NOs: 156 and 157;

- (18) both of SEQ ID NOs: 159 and 158;
- (19) both of SEQ ID NOs: 178 and 10;
- (20) both of SEQ ID NOs: 181 and 21;
- (21) both of SEQ ID NOs: 184 and 32;
- (22) both of SEQ ID NOs: 187 and 43;
- (23) both of SEQ ID NOs: 190 and 54;
- (24) both of SEQ ID NOs: 193 and 65;
- (25) both of SEQ ID NOs: 196 and 76;
- (26) both of SEQ ID NOs: 199 and 87;
- (27) both of SEQ ID NOs: 137 and 202;
- (28) both of SEQ ID NOs: 9 and 205;
- (29) both of SEQ ID NOs: 20 and 207;
- (30) both of SEQ ID NOs: 31 and 209;
- (31) both of SEQ ID NOs: 42 and 211;
- (32) both of SEQ ID NOs: 53 and 213;
- (33) both of SEQ ID NOs: 64 and 215;
- (34) both of SEQ ID NOs: 75 and 217;
- (35) both of SEQ ID NOs: 86 and 219;
- (36) both of SEQ ID NOs: 137 and 221;
- (37) both of SEQ ID NOs: 223 and 202;
- (38) both of SEQ ID NOs: 223 and 221;
- (39) both of SEQ ID NOs: 20 and 226; or
- (40) both of SEQ ID Nos: 181 and 226.

3. The TCR of claim 1 or 2, wherein the TCR comprises the amino acid sequences
of:

- (1) both of SEQ ID NOs: 11 and 12;
- (2) both of SEQ ID NOs: 22 and 23;
- (3) both of SEQ ID NOs: 33 and 34;
- (4) both of SEQ ID NOs: 44 and 45;
- (5) both of SEQ ID NOs: 55 and 56;
- (6) both of SEQ ID NOs: 66 and 67;
- (7) both of SEQ ID NOs: 77 and 78;

- (8) both of SEQ ID NOs: 88 and 89;
- (9) both of SEQ ID NOs: 139 and 140;
- (10) both of SEQ ID NOs: 160 and 161;
- (11) both of SEQ ID NOs: 162 and 163;
- (12) both of SEQ ID NOs: 164 and 165;
- (13) both of SEQ ID NOs: 166 and 167;
- (14) both of SEQ ID NOs: 168 and 169;
- (15) both of SEQ ID NOs: 170 and 171;
- (16) both of SEQ ID NOs: 172 and 173;
- (17) both of SEQ ID NOs: 174 and 175;
- (18) both of SEQ ID NOs: 176 and 177;
- (19) both of SEQ ID NOs: 179 and 12;
- (20) both of SEQ ID NOs: 182 and 23;
- (21) both of SEQ ID NOs: 185 and 34;
- (22) both of SEQ ID NOs: 188 and 45;
- (23) both of SEQ ID NOs: 191 and 56;
- (24) both of SEQ ID NOs: 194 and 67;
- (25) both of SEQ ID NOs: 197 and 78;
- (26) both of SEQ ID NOs: 200 and 89;
- (27) both of SEQ ID NOs: 139 and 203;
- (28) both of SEQ ID NOs: 11 and 206;
- (29) both of SEQ ID NOs: 22 and 208;
- (30) both of SEQ ID NOs: 33 and 210;
- (31) both of SEQ ID NOs: 44 and 212;
- (32) both of SEQ ID NOs: 55 and 214;
- (33) both of SEQ ID NOs: 66 and 216;
- (34) both of SEQ ID NOs: 77 and 218;
- (35) both of SEQ ID NOs: 88 and 220;
- (36) both of SEQ ID NOs: 139 and 222;
- (37) both of SEQ ID NOs: 224 and 203;
- (38) both of SEQ ID NOs: 224 and 222;
- (39) both of SEQ ID NOs: 22 and 227; or
- (40) both of SEQ ID NOs: 182 and 227.

4. The TCR of any one of claims 1-3, wherein the human p53^{R175H} amino acid sequence is SEQ ID NO: 2 or SEQ ID NO: 96.

5. The TCR of any one of claims 1-3, wherein the human p53^{Y220C} amino acid sequence is SEQ ID NO: 113.

6. The TCR of any one of claims 1-4, wherein the TCR does not have antigenic specificity for the wild-type human p53 amino acid sequence of SEQ ID NO: 95.

7. The TCR of any one of claims 1-3 and 5, wherein the TCR does not have antigenic specificity for the wild-type human p53 amino acid sequence of SEQ ID NO: 112.

8. An isolated or purified polypeptide comprising a functional portion of the TCR of any one of claims 1-3, wherein the polypeptide comprises the amino acid sequences of:

- (1) all of SEQ ID NOs: 3-8;
- (2) all of SEQ ID NOs: 14-19;
- (3) all of SEQ ID NOs: 25-30;
- (4) all of SEQ ID NOs: 36-41;
- (5) all of SEQ ID NOs: 47-52;
- (6) all of SEQ ID NOs: 58-63;
- (7) all of SEQ ID NOs: 69-74;
- (8) all of SEQ ID NOs: 80-85; or
- (9) all of SEQ ID NOs: 131-136.

9. The polypeptide of claim 8, wherein the polypeptide comprises the amino acid sequences of:

- (1) both of SEQ ID NOs: 9 and 10;
- (2) both of SEQ ID NOs: 20 and 21;
- (3) both of SEQ ID NOs: 31 and 32;
- (4) both of SEQ ID NOs: 42 and 43;
- (5) both of SEQ ID NOs: 53 and 54;
- (6) both of SEQ ID NOs: 64 and 65;

- (7) both of SEQ ID NOs: 75 and 76;
- (8) both of SEQ ID NOs: 86 and 87;
- (9) both of SEQ ID NOs: 137 and 138;
- (10) both of SEQ ID NOs: 142 and 143;
- (11) both of SEQ ID NOs: 144 and 145;
- (12) both of SEQ ID NOs: 146 and 147;
- (13) both of SEQ ID NOs: 148 and 149;
- (14) both of SEQ ID NOs: 150 and 151;
- (15) both of SEQ ID NOs: 152 and 153;
- (16) both of SEQ ID NOs: 154 and 155;
- (17) both of SEQ ID NOs: 156 and 157;
- (18) both of SEQ ID NOs: 159 and 158;
- (19) both of SEQ ID NOs: 178 and 10;
- (20) both of SEQ ID NOs: 181 and 21;
- (21) both of SEQ ID NOs: 184 and 32;
- (22) both of SEQ ID NOs: 187 and 43;
- (23) both of SEQ ID NOs: 190 and 54;
- (24) both of SEQ ID NOs: 193 and 65;
- (25) both of SEQ ID NOs: 196 and 76;
- (26) both of SEQ ID NOs: 199 and 87;
- (27) both of SEQ ID NOs: 137 and 202;
- (28) both of SEQ ID NOs: 9 and 205;
- (29) both of SEQ ID NOs: 20 and 207;
- (30) both of SEQ ID NOs: 31 and 209;
- (31) both of SEQ ID NOs: 42 and 211;
- (32) both of SEQ ID NOs: 53 and 213;
- (33) both of SEQ ID NOs: 64 and 215;
- (34) both of SEQ ID NOs: 75 and 217;
- (35) both of SEQ ID NOs: 86 and 219;
- (36) both of SEQ ID NOs: 137 and 221;
- (37) both of SEQ ID NOs: 223 and 202;
- (38) both of SEQ ID NOs: 223 and 221;
- (39) both of SEQ ID NOs: 20 and 226; or

(40) both of SEQ ID Nos: 181 and 226.

10. The polypeptide of claim 8 or 9, wherein the polypeptide comprises the amino acid sequences of:

- (1) both of SEQ ID NOs: 11 and 12;
- (2) both of SEQ ID NOs: 22 and 23;
- (3) both of SEQ ID NOs: 33 and 34;
- (4) both of SEQ ID NOs: 44 and 45;
- (5) both of SEQ ID NOs: 55 and 56;
- (6) both of SEQ ID NOs: 66 and 67;
- (7) both of SEQ ID NOs: 77 and 78;
- (8) both of SEQ ID NOs: 88 and 89;
- (9) both of SEQ ID NOs: 139 and 140;
- (10) both of SEQ ID NOs: 160 and 161;
- (11) both of SEQ ID NOs: 162 and 163;
- (12) both of SEQ ID NOs: 164 and 165;
- (13) both of SEQ ID NOs: 166 and 167;
- (14) both of SEQ ID NOs: 168 and 169;
- (15) both of SEQ ID NOs: 170 and 171;
- (16) both of SEQ ID NOs: 172 and 173;
- (17) both of SEQ ID NOs: 174 and 175;
- (18) both of SEQ ID NOs: 176 and 177;
- (19) both of SEQ ID NOs: 179 and 12;
- (20) both of SEQ ID NOs: 182 and 23;
- (21) both of SEQ ID NOs: 185 and 34;
- (22) both of SEQ ID NOs: 188 and 45;
- (23) both of SEQ ID NOs: 191 and 56;
- (24) both of SEQ ID NOs: 194 and 67;
- (25) both of SEQ ID NOs: 197 and 78;
- (26) both of SEQ ID NOs: 200 and 89;
- (27) both of SEQ ID NOs: 139 and 203;
- (28) both of SEQ ID NOs: 11 and 206;
- (29) both of SEQ ID NOs: 22 and 208;

- (30) both of SEQ ID NOs: 33 and 210;
- (31) both of SEQ ID NOs: 44 and 212;
- (32) both of SEQ ID NOs: 55 and 214;
- (33) both of SEQ ID NOs: 66 and 216;
- (34) both of SEQ ID NOs: 77 and 218;
- (35) both of SEQ ID NOs: 88 and 220;
- (36) both of SEQ ID NOs: 139 and 222;
- (37) both of SEQ ID NOs: 224 and 203;
- (38) both of SEQ ID NOs: 224 and 222;
- (39) both of SEQ ID NOs: 22 and 227; or
- (40) both of SEQ ID NOs: 182 and 227.

11. An isolated or purified protein comprising:

(1) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 3-5 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 6-8;

(2) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 14-16 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 17-19;

(3) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 25-27 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 28-30;

(4) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 36-38 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 39-41;

(5) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 47-49 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 50-52;

(6) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 58-60 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 61-63;

(7) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 69-71 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 72-74;

(8) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 80-82 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 83-85; or

(9) a first polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 131-133 and a second polypeptide chain comprising the amino acid sequences of all of SEQ ID NOs: 134-136.

12. The protein of claim 11, wherein the protein comprises:

(1) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 9 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 10;

(2) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 20 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 21;

(3) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 31 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 32;

(4) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 42 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 43;

(5) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 53 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 54;

(6) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 64 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 65;

(7) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 75 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 76;

(8) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 86 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 87;

(9) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 137 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 138;

(10) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 142 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 143;

(11) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 144 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 145;

(12) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 146 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 147;

(13) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 148 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 149;

(14) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 150 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 151;

(15) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 152 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 153;

(16) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 154 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 155;

(17) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 156 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 157;

(18) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 158 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 159;

(19) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 178 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 10;

(20) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 181 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 21;

(21) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 184 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 32;

(22) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 187 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 43;

- (23) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 190 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 54;
- (24) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 193 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 65;
- (25) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 196 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 76;
- (26) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 199 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 87;
- (27) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 137 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 202;
- (28) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 9 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 205;
- (29) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 20 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 207;
- (30) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 31 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 209;
- (31) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 42 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 211;
- (32) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 53 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 213;
- (33) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 64 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 215;
- (34) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 75 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 217;
- (35) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 86 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 219;
- (36) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 137 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 221;
- (37) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 223 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 202;

(38) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 223 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 221;

(39) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 20 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 226; or

(40) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 181 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 226.

13. The protein of claim 11 or 12, wherein the protein comprises:

(1) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 11 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 12;

(2) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 22 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 23;

(3) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 33 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 34;

(4) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 44 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 45;

(5) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 55 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 56;

(6) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 66 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 67;

(7) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 77 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 78;

(8) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 88 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 89;

(9) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 139 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 140;

(10) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 160 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 161;

(11) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 162 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 163;

(12) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 164 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 165;

(13) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 166 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 167;

(14) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 168 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 169;

(15) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 170 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 171;

(16) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 172 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 173;

(17) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 174 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 175;

(18) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 176 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 177;

(19) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 179 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 12;

(20) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 182 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 23;

(21) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 185 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 34;

(22) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 188 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 45;

(23) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 191 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 56;

(24) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 194 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 67;

(25) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 197 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 78;

(26) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 200 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 89;

(27) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 139 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 203;

(28) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 11 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 206;

(29) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 22 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 208;

(30) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 33 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 210;

(31) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 44 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 212;

(32) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 55 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 214;

(33) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 66 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 216;

(34) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 77 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 218;

(35) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 88 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 220;

(36) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 139 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 222;

(37) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 224 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 203;

(38) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 224 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 222;

(39) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 22 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 227; or

(40) a first polypeptide chain comprising the amino acid sequence of SEQ ID NO: 182 and a second polypeptide chain comprising the amino acid sequence of SEQ ID NO: 227.

14. An isolated or purified nucleic acid comprising a nucleotide sequence encoding the TCR of any one of claims 1-7, the polypeptide of any one of claims 8-10, or the protein of any one of claims 11-13.

15. An isolated or purified nucleic acid comprising, from 5' to 3', a first nucleic acid sequence and a second nucleotide sequence, wherein the first and second nucleotide sequence, respectively, encode the amino sequences of SEQ ID NOs: 9 and 10; 10 and 9; 20 and 21; 21 and 20; 31 and 32; 32 and 31; 42 and 43; 43 and 42; 53 and 54; 54 and 53; 64 and 65; 65 and 64; 75 and 76; 76 and 75; 86 and 87; 87 and 86; 137 and 138; 138 and 137; 142 and 143; 143 and 142; 144 and 145; 145 and 144; 146 and 147; 147 and 146; 148 and 149; 149 and 148; 150 and 151; 151 and 150; 152 and 153; 153 and 152; 154 and 155; 155 and 154; 156 and 157; 157 and 156; 159 and 158; 158 and 159; 178 and 10; 10 and 178; 181 and 21; 21 and 181; 184 and 32; 32 and 184; 187 and 43; 43 and 187; 190 and 54; 54 and 190; 193 and 65; 65 and 193; 196 and 76; 76 and 196; 199 and 87; 87 and 199; 137 and 202; 202 and 137; 9 and 205; 205 and 9; 20 and 207; 207 and 20; 31 and 209; 209 and 31; 42 and 211; 211 and 42; 53 and 213; 213 and 53; 64 and 215; 215 and 64; 75 and 217; 217 and 75; 86 and 219; 219 and 86; 137 and 221; 221 and 137; 223 and 202; 202 and 223; 223 and 221; 221 and 223; 20 and 226; 226 and 20; 181 and 226; or 226 and 181.

16. The isolated or purified nucleic acid of claim 15, further comprising a third nucleotide acid sequence interposed between the first and second nucleotide sequence, wherein the third nucleotide sequence encodes a cleavable linker peptide.

17. The isolated or purified nucleic acid of claim 16, wherein the cleavable linker peptide comprises the amino acid sequence of SEQ ID NO: 94.

18. The isolated or purified nucleic acid of claim 17, which encodes an amino acid sequence selected from the group consisting of: SEQ ID NO: 13, 24, 35, 46, 57, 68, 79, 90, 141, 180, 183, 186, 189, 192, 195, 198, 201, 204, 225, 228, and 229.

19. A recombinant expression vector comprising the nucleic acid of any one of claims 14-18.

20. The recombinant expression vector of claim 19, which is a transposon or a lentiviral vector.

21. An isolated or purified TCR, polypeptide, or protein encoded by the nucleic acid of any one of claims 14-18 or the vector of claim 19 or 20.

22. An isolated or purified TCR, polypeptide, or protein that results from expression of the nucleic acid of any one of claims 14-18 or the vector of claim 19 or 20 in a cell.

23. A method of producing a host cell expressing a TCR that has antigenic specificity for the peptide of SEQ ID NO: 2, 96 or 113, the method comprising contacting a cell with the vector of claim 19 or 20 under conditions that allow introduction of the vector into the cell.

24. An isolated or purified host cell comprising the nucleic acid of any one of claims 14-18 or the recombinant expression vector of claim 19 or 20.

25. The host cell of claim 24, wherein the cell is a human lymphocyte.

26. The host cell of claim 24, wherein the cell is selected from the group consisting of a T cell, a natural killer T (NKT) cell, an invariant natural killer T (iNKT) cell, and a natural killer (NK) cell.

27. An isolated or purified population of cells comprising the host cell of any one of claims 24-26.

28. A method of producing the TCR of any one of claims 1-7, 21, or 22, the polypeptide of any one of claims 8-10, 21, or 22, or the protein of any one of claims 11-13, 21, or 22, the method comprising culturing the host cell of any one of claims 24-26, or the population of host cells of claim 27, so that the TCR, polypeptide, or protein is produced.

29. A pharmaceutical composition comprising (a) the TCR of any one of claims 1-7, 21, or 22, the polypeptide of any one of claims 8-10, 21, or 22, the protein of any one of claims 11-13, 21, or 22, the nucleic acid of any one of claims 14-18, the recombinant expression vector of claim 19 or 20, the host cell of any one of claims 24-26, or the population of cells of claim 27 and (b) a pharmaceutically acceptable carrier.

30. A method of detecting the presence of cancer in mammal, the method comprising:

(a) contacting a sample comprising cells of the cancer with the TCR of any one of claims 1-7, 21, or 22, the polypeptide of any one of claims 8-10, 21, or 22, the protein of any one of claims 11-13, 21, or 22, the nucleic acid of any one of claims 14-18, the recombinant expression vector of claim 19 or 20, the host cell of any one of claims 24-26, the population of cells of claim 27, or the pharmaceutical composition of claim 29, thereby forming a complex; and

(b) detecting the complex,

wherein detection of the complex is indicative of the presence of cancer in the mammal.

31. The TCR of any one of claims 1-7, 21, or 22, the polypeptide of any one of claims 8-10, 21, or 22, the protein of any one of claims 11-13, 21, or 22, the nucleic acid of any one of claims 14-18, the recombinant expression vector of claim 19 or 20, the host cell of any one of claims 24-26, the population of cells of claim 27, or the pharmaceutical composition of claim 29, for use in inducing an immune response against a cancer in a mammal.

32. The TCR of any one of claims 1-7, 21, or 22, the polypeptide of any one of claims 8-10, 21, or 22, the protein of any one of claims 11-13, 21, or 22, the nucleic acid of any one of claims 14-18, the recombinant expression vector of claim 19 or 20, the host cell of

any one of claims 24-26, the population of cells of claim 27, or the pharmaceutical composition of claim 29, for use in treating or preventing cancer in a mammal.

33. The TCR, polypeptide, protein, nucleic acid, recombinant expression vector, host cell, population of cells, or pharmaceutical composition for the use of claim 31 or 32, wherein the use comprises administering the population of cells to the mammal, and the population of cells is autologous to the mammal.

34. The TCR, polypeptide, protein, nucleic acid, recombinant expression vector, host cell, population of cells, or pharmaceutical composition for the use of claim 31 or 32, wherein the use comprises administering the population of cells to the mammal, and the population of cells is allogeneic to the mammal.

35. The method of claim 30, or the TCR, polypeptide, protein, nucleic acid, recombinant expression vector, host cell, population of cells, or pharmaceutical composition for the use of any one of claims 31-34, wherein the cancer is an epithelial cancer.

36. The method of claim 30, or the TCR, polypeptide, protein, nucleic acid, recombinant expression vector, host cell, population of cells, or pharmaceutical composition for the use of any one of claims 31-34, wherein the cancer is cholangiocarcinoma, melanoma, colon cancer, rectal cancer, ovarian cancer, endometrial cancer, non-small cell lung cancer (NSCLC), glioblastoma, uterine cervical cancer, head and neck cancer, breast cancer, pancreatic cancer, or bladder cancer.

37. The method of any one of claims 30 and 35-36, or the TCR, polypeptide, protein, nucleic acid, recombinant expression vector, host cell, population of cells, or pharmaceutical composition for the use of any one of claims 31-36, wherein the cancer is known to comprise an R175H or a Y220C mutation in human p53.