

FIG. 1A

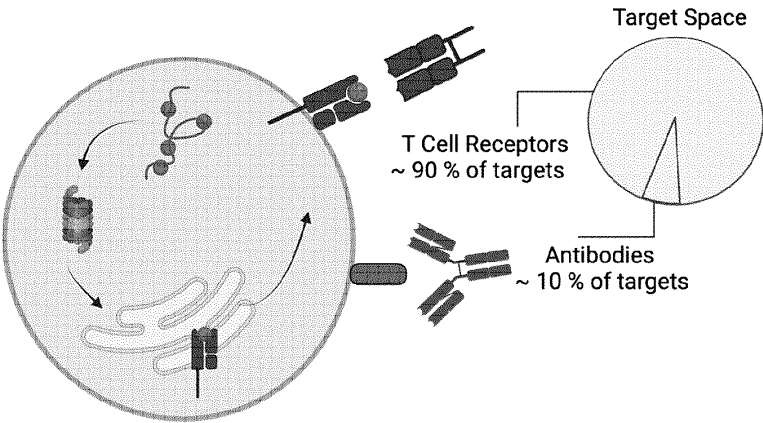


FIG. 1B

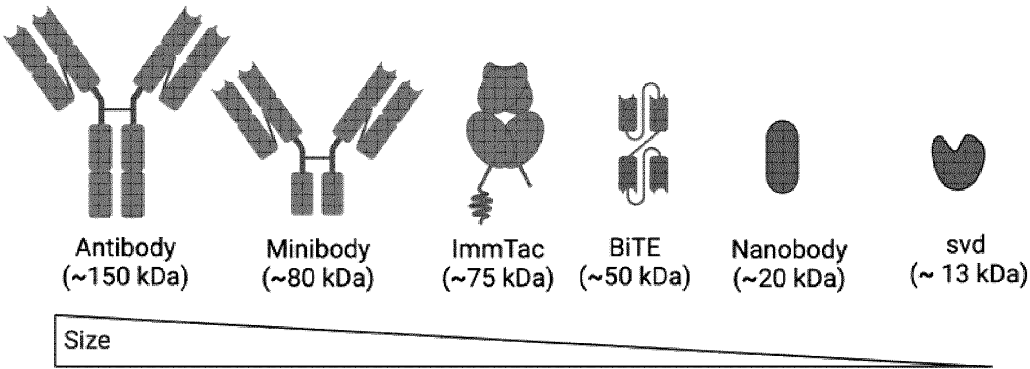


FIG. 1C

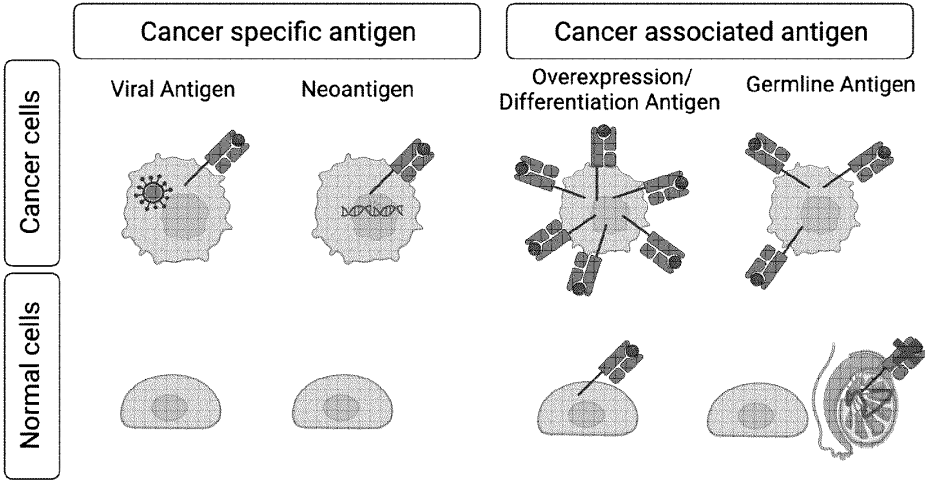


FIG. 1D

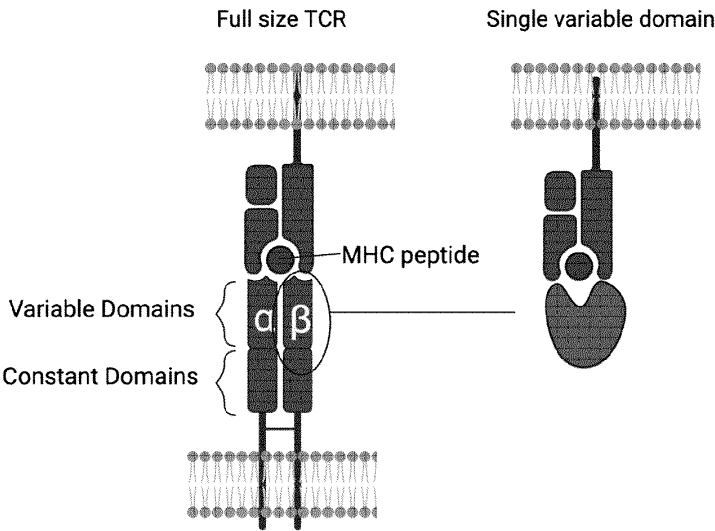


FIG. 1E

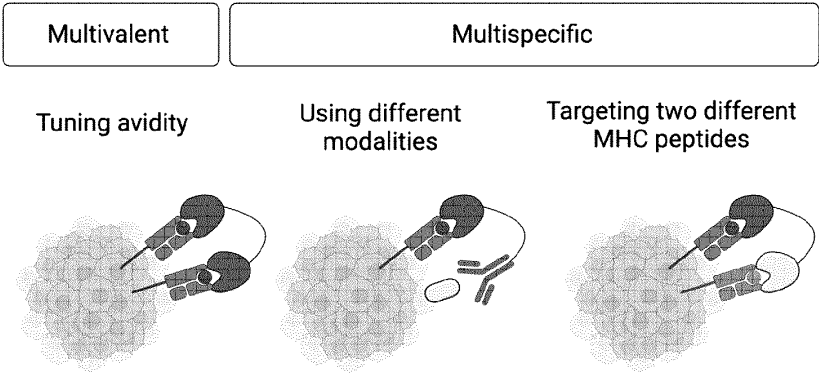


FIG. 2A

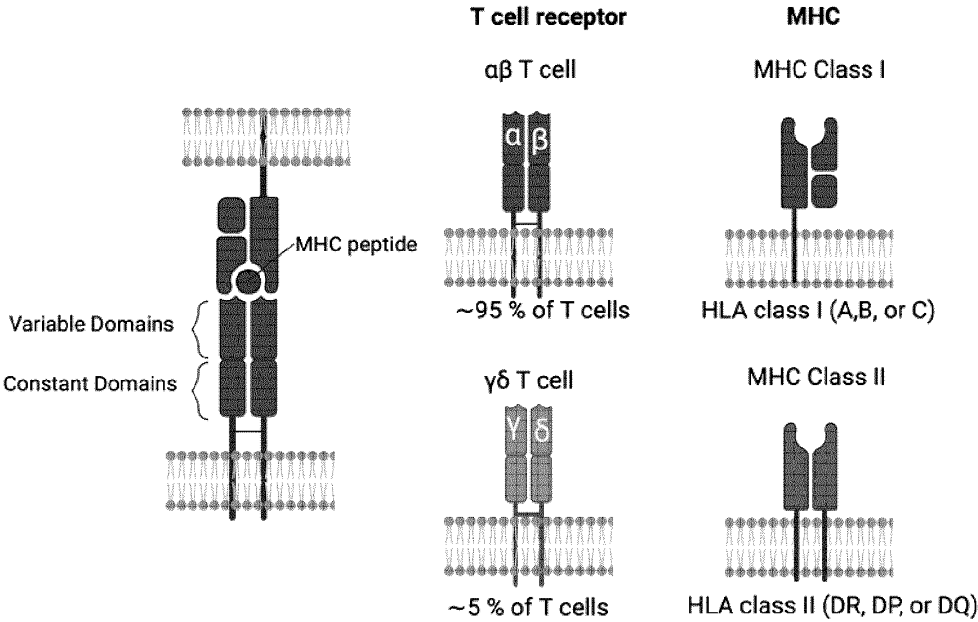
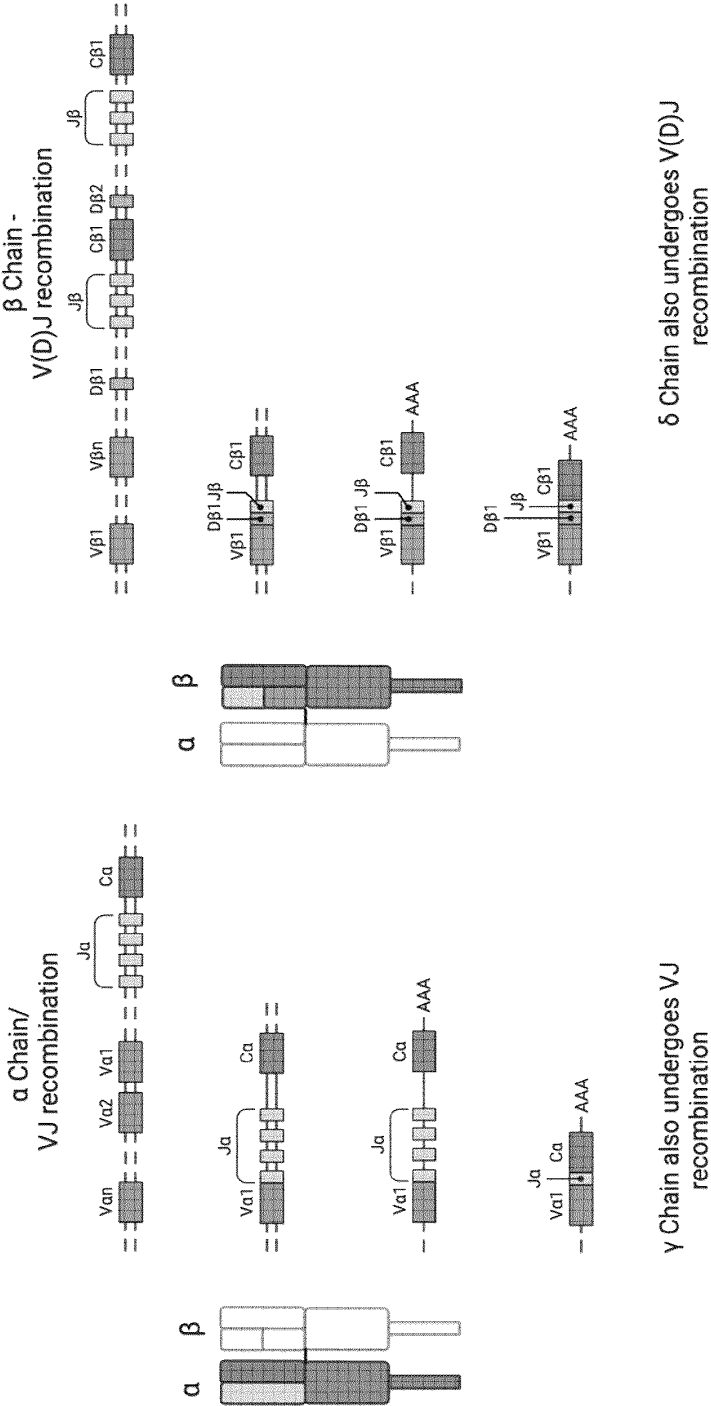
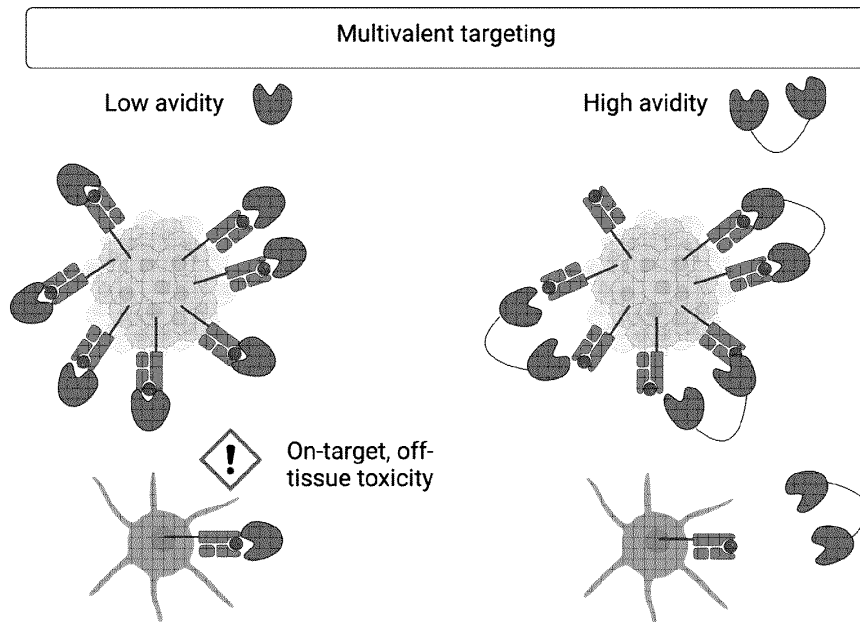


FIG. 2B



**FIG. 3**



**FIG. 4A**

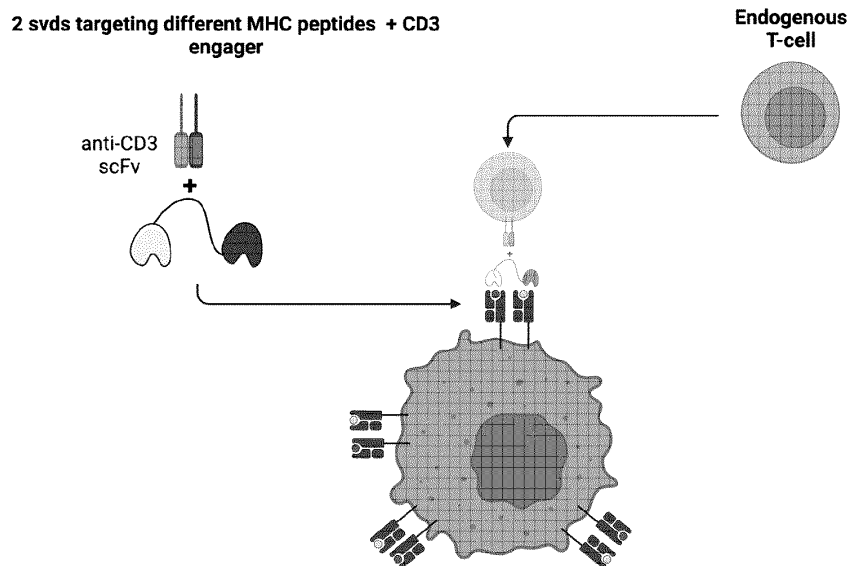


FIG. 4B

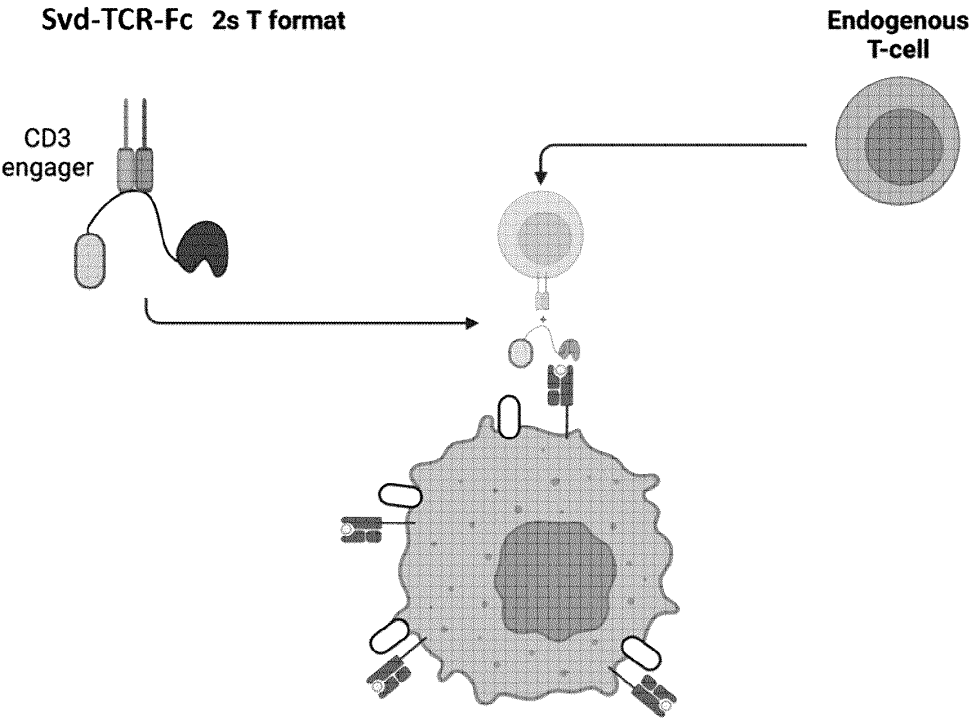
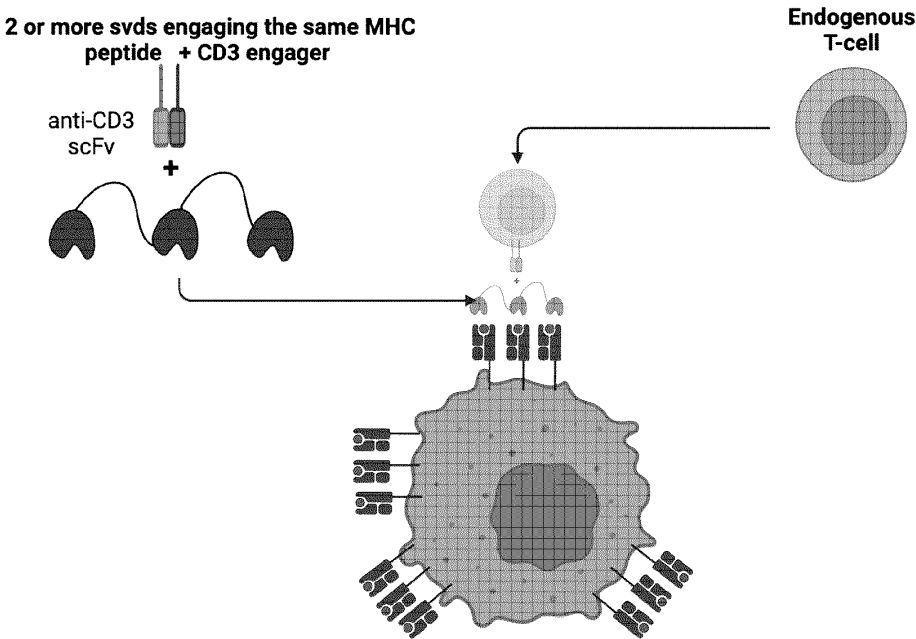
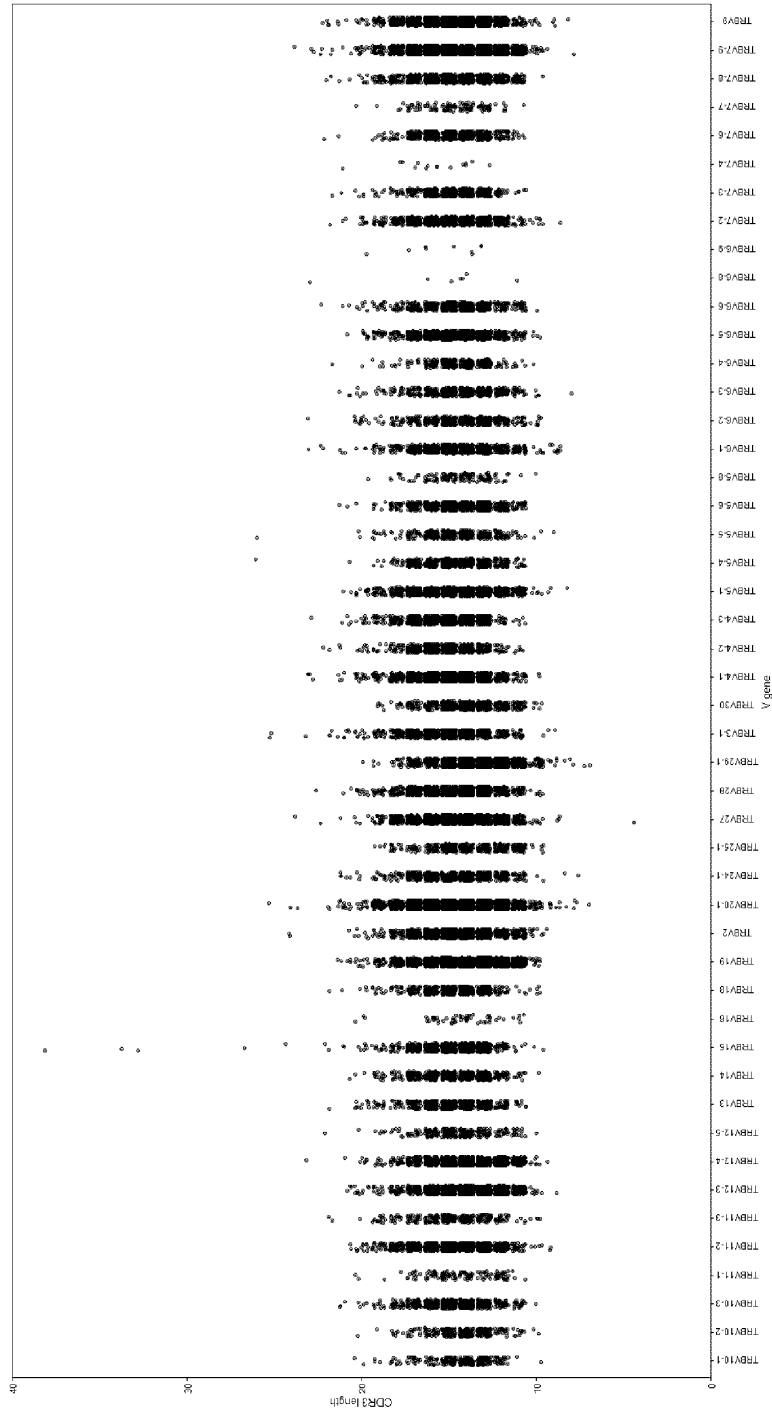


FIG. 4C



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FIG. 5



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FIG. 6A

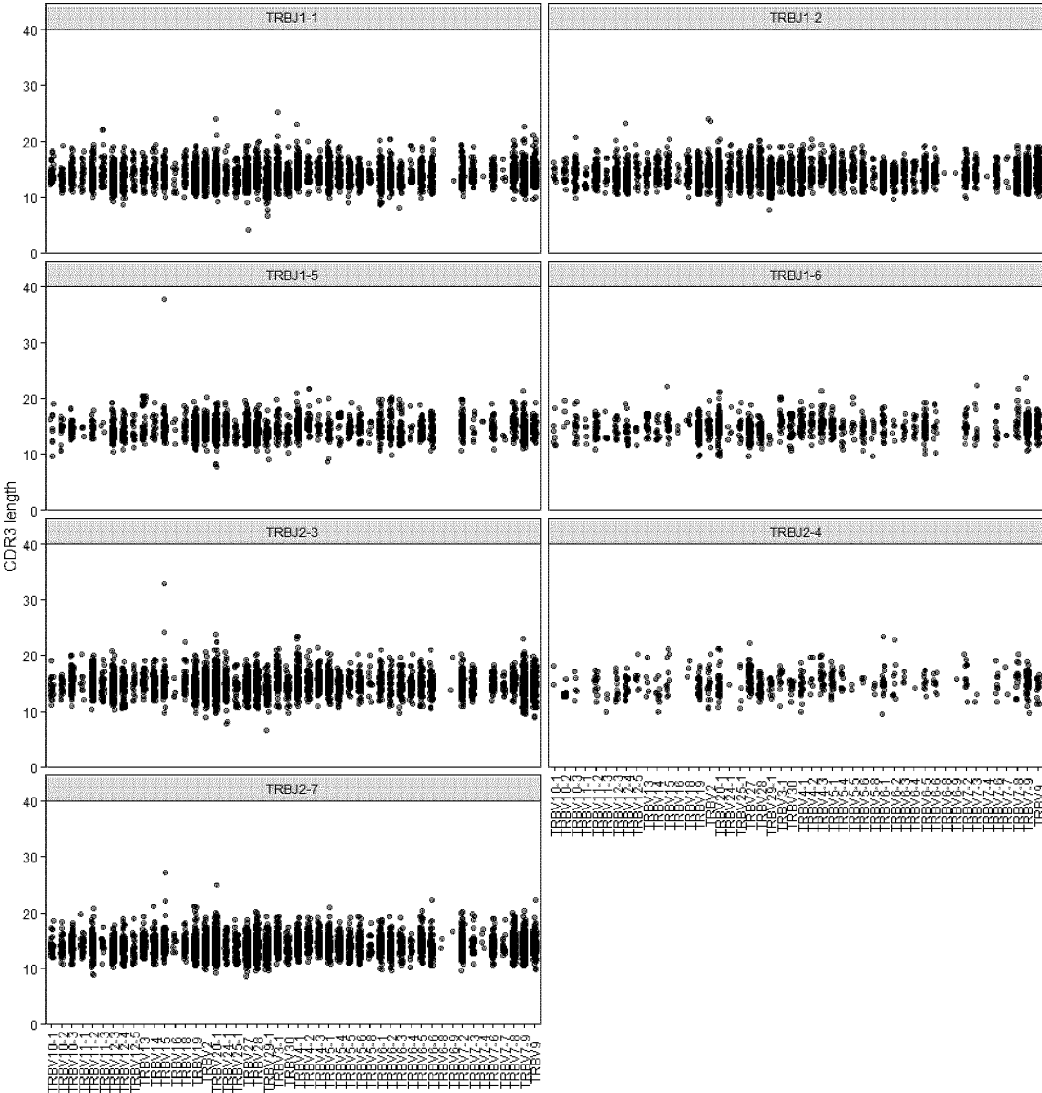
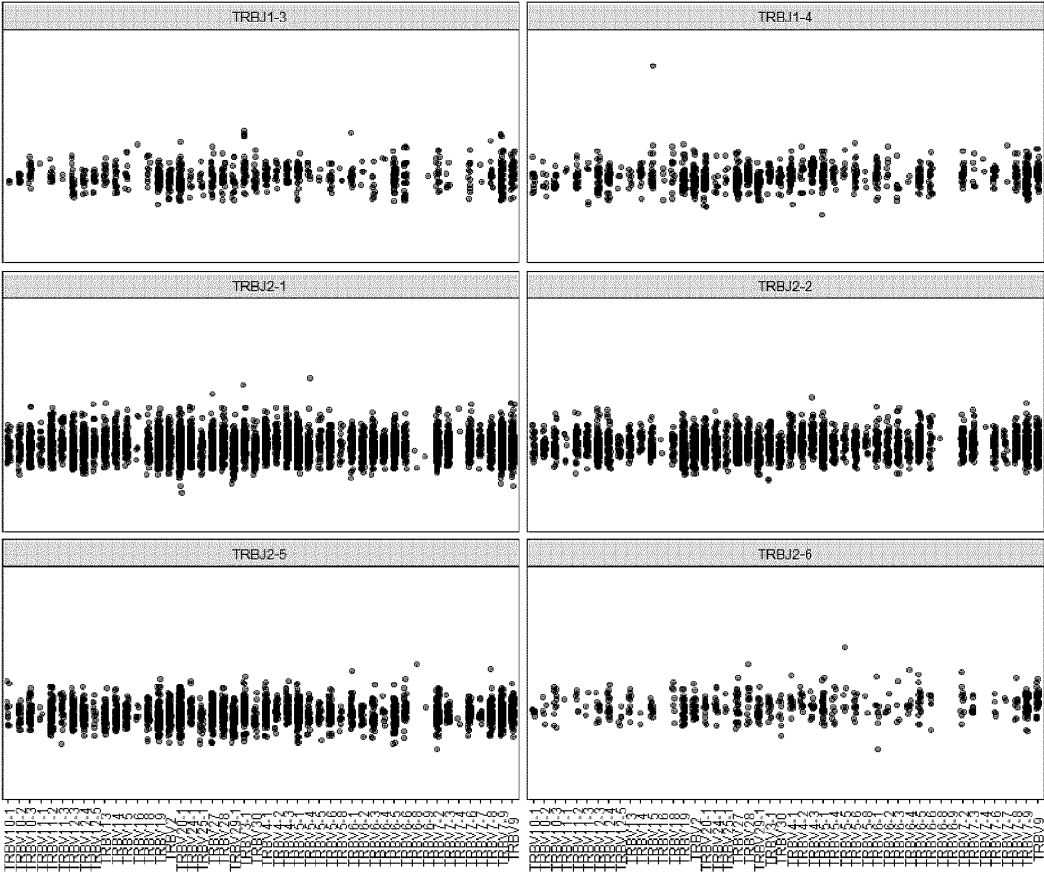
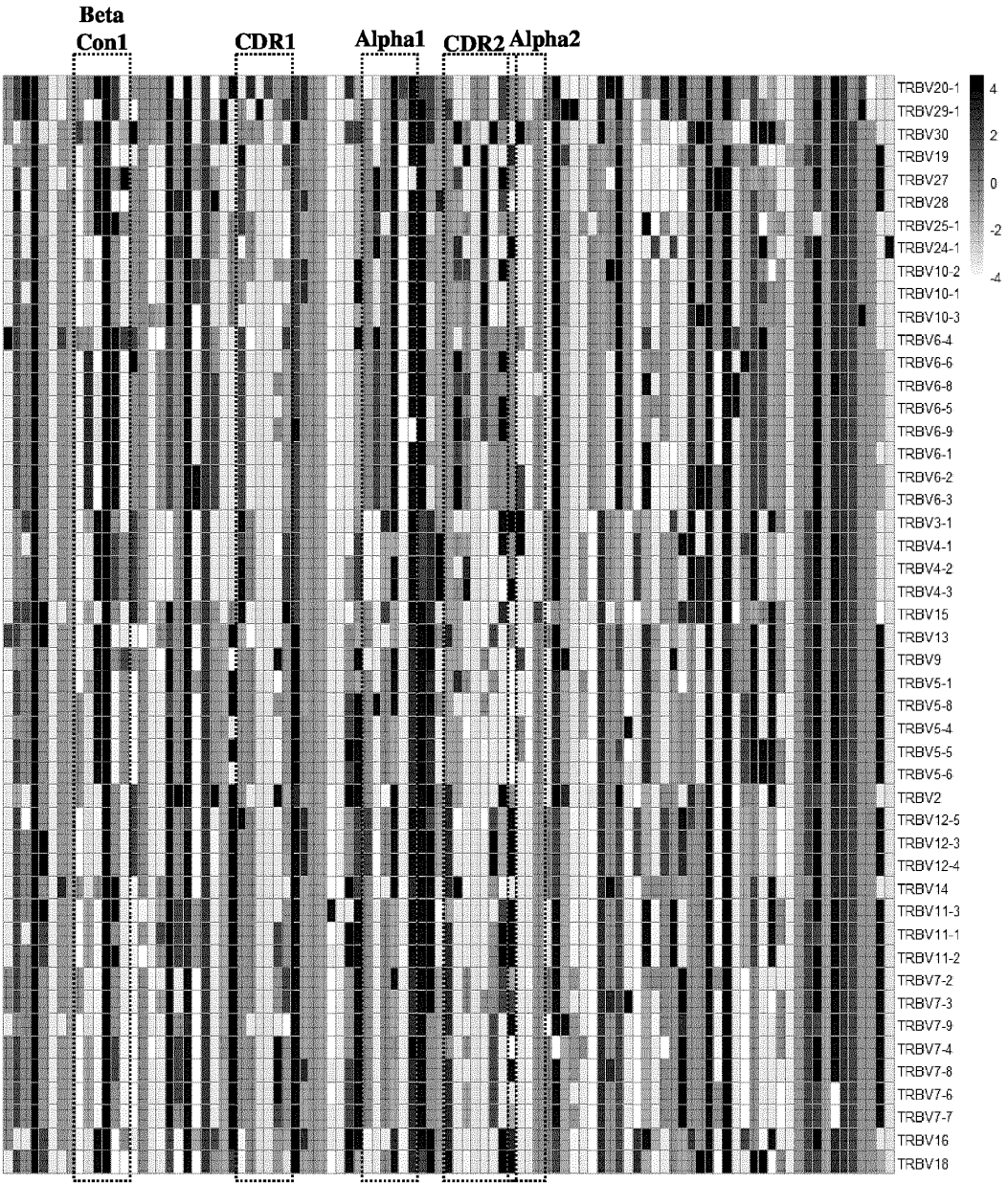


FIG. 6B



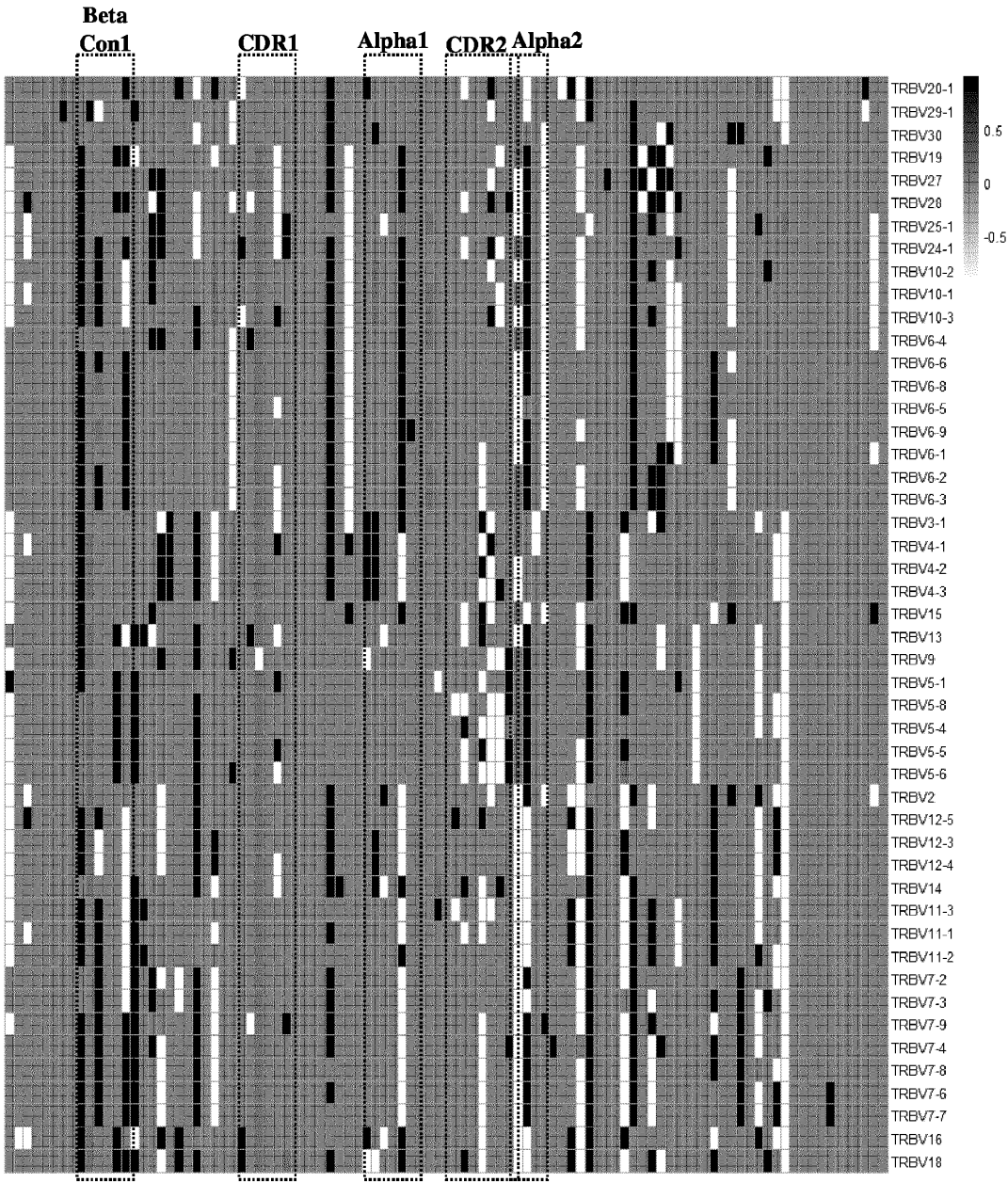
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FIG. 7A



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FIG. 7B



**FIG. 7C**

Sequence logo for the CDR1, Alpha1, CDR2, and Alpha2 regions of the antibody. The y-axis represents the position in the sequence (1 to 40). The x-axis represents the amino acid sequence. The logo shows the conservation of amino acids across the regions. The CDR1 region is the most conserved, followed by Alpha1, CDR2, and Alpha2. The Alpha2 region shows the least conservation.

FIG. 7D

|                                                      | CDR1                                                    | CDR2                                         | CDR3                   | SEQ ID NO |
|------------------------------------------------------|---------------------------------------------------------|----------------------------------------------|------------------------|-----------|
| Oh-VB-NY-ESO-2                                       | EAGVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE  | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSLGGRGLAG | RGDFPFGGTRLTIVL        | 64        |
| Oh-VB-MAGE-A3-5                                      | EAGVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE  | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSLGDELGA  | RGDFPFGGTRLTIVL        | 65        |
| 4e41_E-98.91                                         | --GVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE  | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASS         | -----Q                 | 66        |
| 4e42_B-98.91                                         | --VTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE   | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASS         | -----ETQYFPGGTRLTIVL   | 67        |
| 4j3Y_E-80.65                                         | --AGVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSR        | -----ETQYFPGGTRLTIVL   | 68        |
| 6u1E_E-79.79                                         | --GVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE  | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSL        | -----GVNIGITGSGTRLTIVV | 69        |
| 7su9_E-79.79                                         | --GVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE  | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSL        | -----GVNIGITGSGTRLTIVV | 70        |
| 6u3n_E-79.79                                         | --GVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE  | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSL        | -----GVNIGITGSGTRLTIVV | 71        |
| 6u1n_E-79.79                                         | --GVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE  | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSL        | -----GVNIGITGSGTRLTIVV | 72        |
| 6bJ2_E-79.57                                         | --AGVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSL        | -----GVNIGITGSGTRLTIVL | 73        |
| 5nmf_E-79.57                                         | --AGVTQSPTHLTKTGQQAATLRCSFISGHTSVNTYQQALGGLGQIFLLWYDEGE | ARGCNFPFRSGRQFPNYSSELVNALEDSALYLCASSD        | -----VAFHIFPGGTRLTIVT  | 74        |
| % seq ident of V                                     | *****                                                   | *****                                        | *****                  | *****     |
| Beta variable domain contacting beta constant domain | *****                                                   | *****                                        | *****                  | *****     |
| Beta variable domain contacting alpha domain         | *****                                                   | *****                                        | *****                  | *****     |

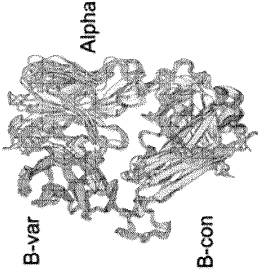
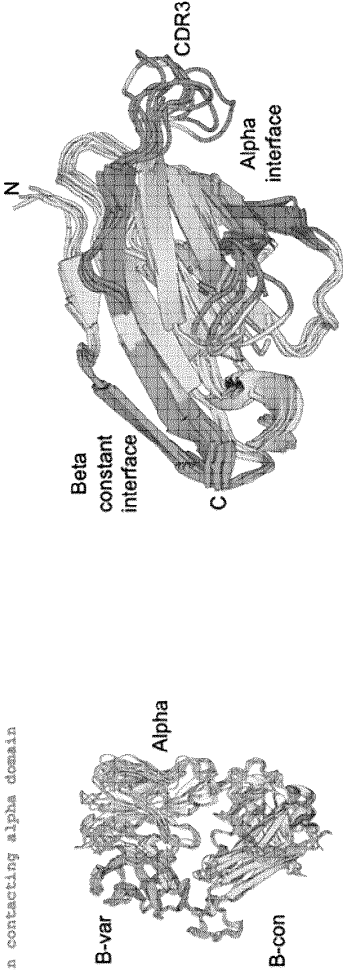


FIG. 8

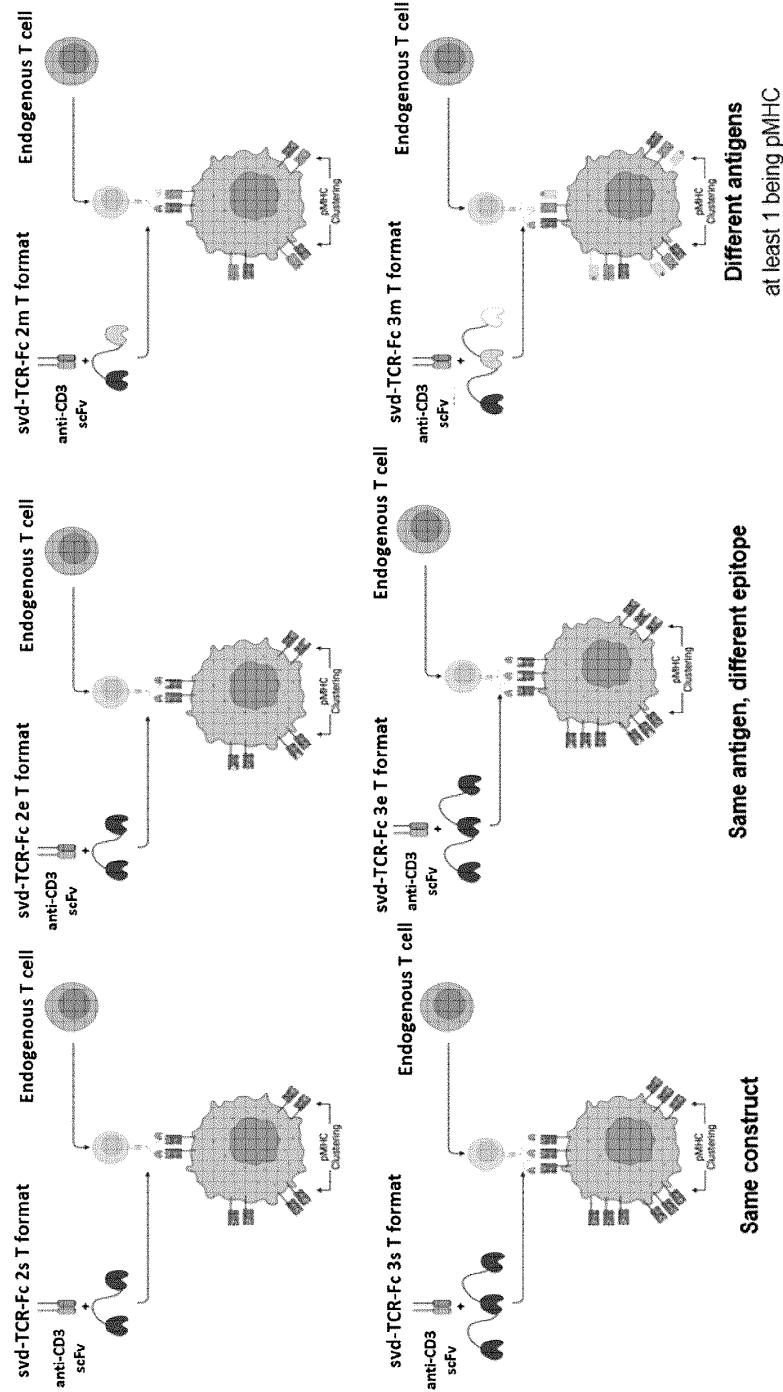


FIG. 9

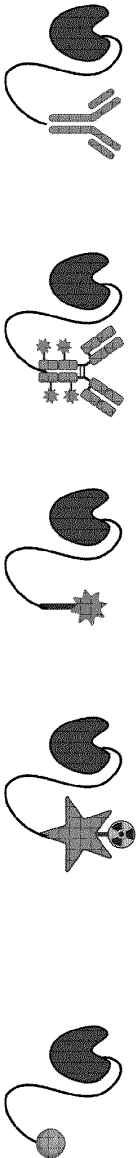


FIG. 10

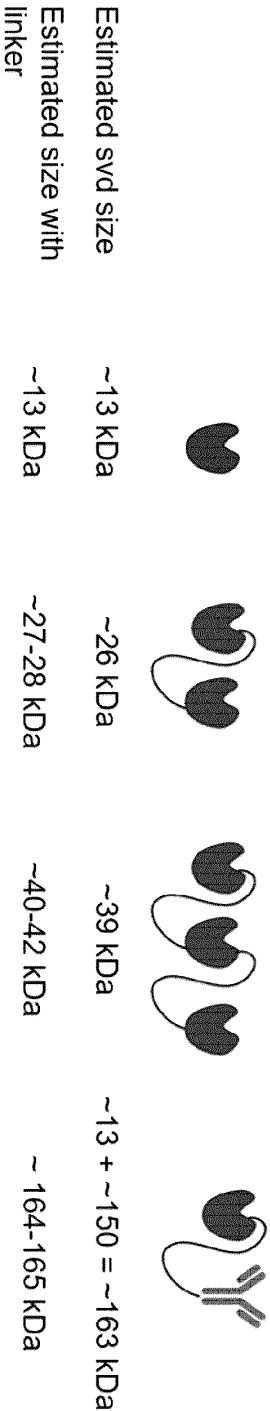


FIG. 11A

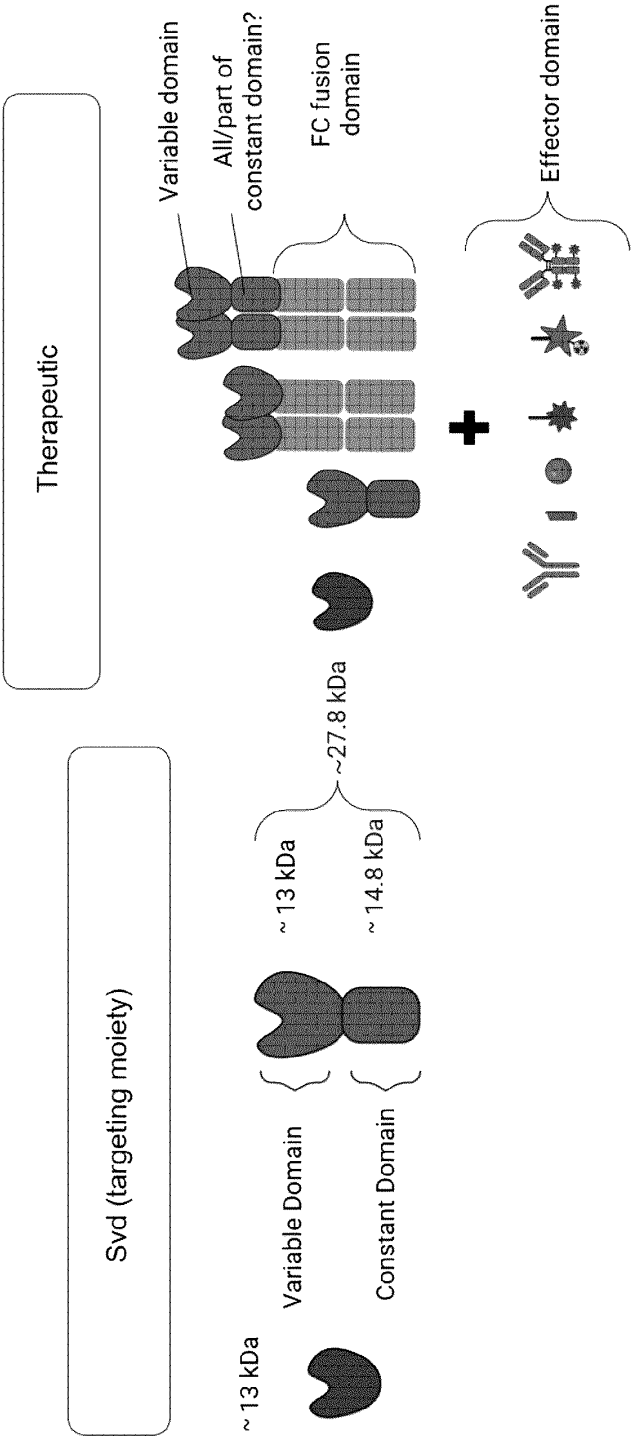


FIG. 11B

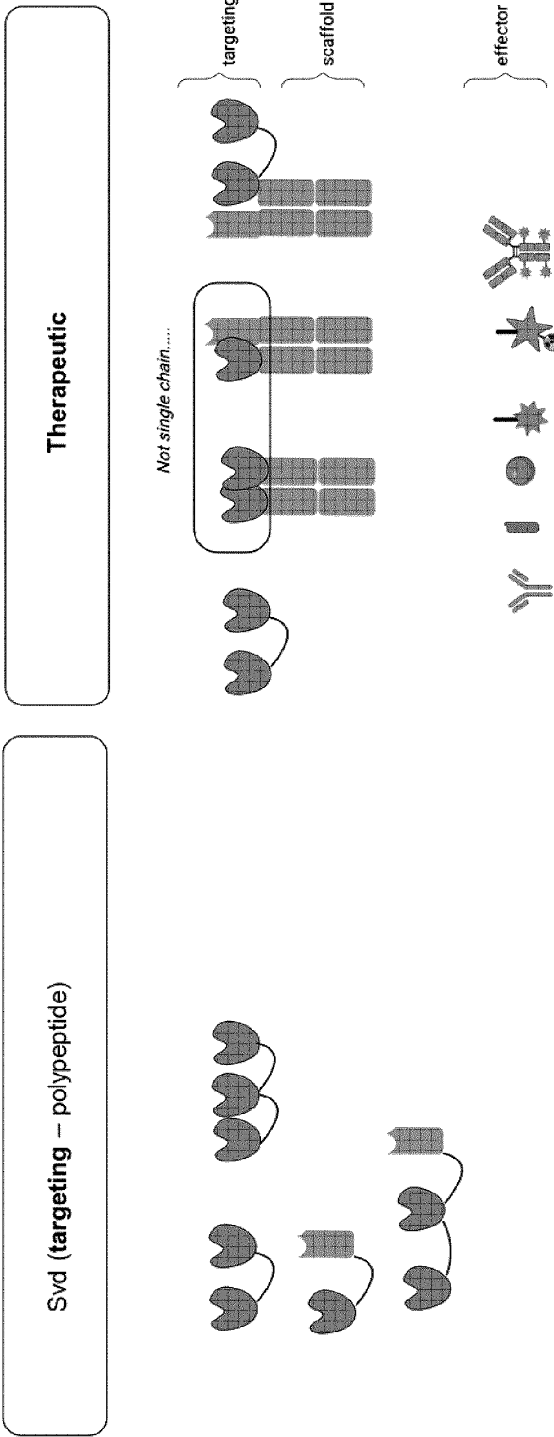
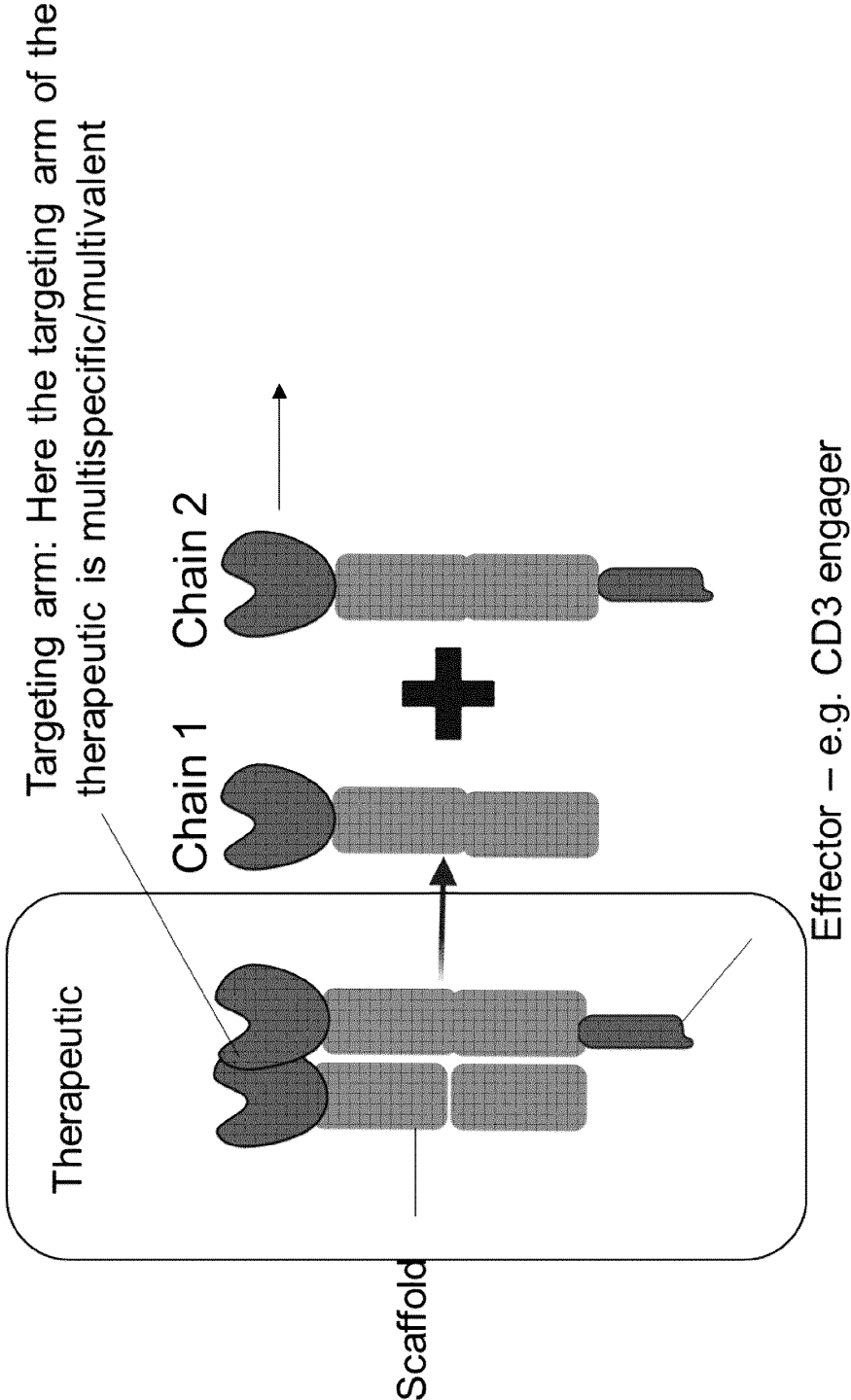


FIG. 12



**FIG. 13A**

| SEQ. ID   | CDR1                                                                                                    | CDR2 | CDR3 |
|-----------|---------------------------------------------------------------------------------------------------------|------|------|
| TRBV20-1  | GAVVQSHEWTKIGTSGVATKIECRSLDFQATNMYRQFPKQSGMLMATAVNSGSKATYEEGVKDFKPFIRSNLFIATLSTLSTVTSAHPEDSFIFYCASR--   |      |      |
| TRBV29-1  | SAVLSQKFSRQICQSGTSLATIQVDSQV--TMFMFYRQFPQCSQITLITANQGSATSEYSGVIFDKFPIRSNLFITSLTVMNSPESDYSILCVSE--       |      |      |
| TRBV29-2  | QSIHQWPAVLVQPVGSPLEISCTVEGTSNPNLWYRQAAGRGQLLFFSVG--IGQLISSEVP--QNLASRRQDQFILLSSKULLSLDSCGYLCAWS--       |      |      |
| TRBV30    | DGGTSGPKYLFRKGGQVTLSCBQNLNH--DNMYWYRQDPQCGRLRLIYSQI--VNDPKQGDIA--EGTYSVRKKNKFFPLTYSQAQWPAFYHLCASSI--    |      |      |
| TRBV31    | GAQVTPQRYLLTYVTKGLVATKQNSNNH--ENMYWYRQDPQCGRLRLIYSQIM--VEBTDKQGVF--DGTYSVRKKNKFFPLTISESPNQSLYFCASSI--   |      |      |
| TRBV27    | DVKTQYSRYIVTKRGEKVFIECVQMDH--ENMYWYRQDPQGLRLIHYSVG--VQMKKEGDIP--EGTYSVRKKEKFFPLTISESARSHQSMWYLCASSI--   |      |      |
| TRBV28    | EADIQTPRYVIVTKGKKITKSGTMGH--DNMYWYRQDPQCGRLRLIHYSVG--VNSTEKGDLS--SESTYSVIRTRTSEPLTISELARSRSHQSYLCASSA-- |      |      |
| TRBV25-1  | DADVTQPNRILVTKGKIMLECSQTKGH--DNMYWYRQDPQGLRLRLIYSFD--VNDINKGIS--DGTYSVRSQAQKFSLSISEAIFNQZALIFCAISDL     |      |      |
| TRBV24-1  | DADITQSPRYKITEGRTQVLMKQWNSH--SNMFYRQDPQGLRLRLIYSAA--ADITDKGEVP--DGTYSVRSKTFNEDPLTISESATRSQSYVFCASSB--   |      |      |
| TRBV10-1  | DASITQSPRYKITEGRTQVLMKQWNSH--SNMFYRQDPQGLRLRLIHYSG--VQDTNKGGEV--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSB--    |      |      |
| TRBV10-2  | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVS--DGTYSVRSKRTEDPLTISESATRSQSYVFCALSB--  |      |      |
| TRBV10-3  | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-4   | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-5   | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-6   | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-7   | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-8   | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-9   | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-10  | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-11  | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-12  | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV6-13  | DAGITQSPRYKITEGRTQVLMKQWNSH--RYMYWYRQDPQCGRLRLIHYSVG--VKDQTKGEVP--DGTYSVRSNRTEDPLTISESATRSQSYVFCASSY--  |      |      |
| TRBV3-1   | DVAVTQPKYLVITQMGNDKSLKEQNLGH--DTMYWYRQDPQSGKFLMFIYSYN--KELLINETVP--NRFSPSPDKAHMLNHLSLUGDVAIVFCASSQ--    |      |      |
| TRBV4-1   | DTAVTQPKYLVITQMGNDKSLKEQNLGH--RYMYWYRQDPQSGKFLMFIYSYN--KELLINETVP--NRFSPSPDKAHMLNHLSLUGDVAIVFCASSQ--    |      |      |
| TRBV4-2   | ETVGTQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVN--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-3   | ETVGTQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-4   | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-5   | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-6   | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-7   | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-8   | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-9   | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-10  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-11  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-12  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-13  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-14  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-15  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-16  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-17  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-18  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-19  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-20  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-21  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-22  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-23  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-24  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-25  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-26  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-27  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-28  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-29  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-30  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-31  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-32  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-33  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-34  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-35  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-36  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-37  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-38  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-39  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-40  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-41  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-42  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-43  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-44  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-45  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-46  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-47  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-48  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-49  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-50  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-51  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-52  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-53  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-54  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-55  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-56  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-57  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-58  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-59  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-60  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-61  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-62  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-63  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-64  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-65  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-66  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-67  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-68  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-69  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-70  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-71  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-72  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-73  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-74  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-75  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-76  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-77  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-78  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-79  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-80  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-81  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-82  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-83  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-84  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-85  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-86  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-87  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-88  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-89  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-90  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-91  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-92  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-93  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-94  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-95  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-96  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-97  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-98  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-99  | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |
| TRBV4-100 | DAMVYQPKYLVITQMGNDKSLKEQNLGH--NAMWYRQSAKPLELMFIYVS--KQETENNVP--SFPSPSPDKAHMLNHLSLUGDVAIVFCASSQ--        |      |      |

FIG. 13B

|         |                               |           |    |
|---------|-------------------------------|-----------|----|
| TRBJ1-1 | NTEAFFGQGTRLTVV               | SEQ ID NO | 49 |
| TRBJ1-2 | NYGYTFGSGTRLTVV               |           | 50 |
| TRBJ1-3 | SGNTIYFGE <del>GS</del> WLTVV |           | 51 |
| TRBJ1-4 | TNEKLFFGSGTQLSVL              |           | 52 |
| TRBJ1-5 | SNQPQHFGDGRSLIL               |           | 53 |
| TRBJ1-6 | SYNSPLHFGNGTRLTVT             |           | 54 |
| TRBJ2-1 | SYNEQFFGPGTRLTVL              |           | 55 |
| TRBJ2-2 | NTGELFFGEGSRLLTVL             |           | 56 |
| TRBJ2-3 | STD <del>T</del> QYFGPGTRLTVL |           | 57 |
| TRBJ2-4 | AKNIQYFGAGTRL <del>SV</del> L |           | 58 |
| TRBJ2-5 | QETQYFGPGTRL <del>LL</del> V  |           | 59 |
| TRBJ2-6 | SGANVLTFGAGSRLLTVL            |           | 60 |
| TRBJ2-7 | SYEQYFGPGTRLTVT               |           | 61 |

FIG. 14B

MAGE-A3-5

NY-ESO-1

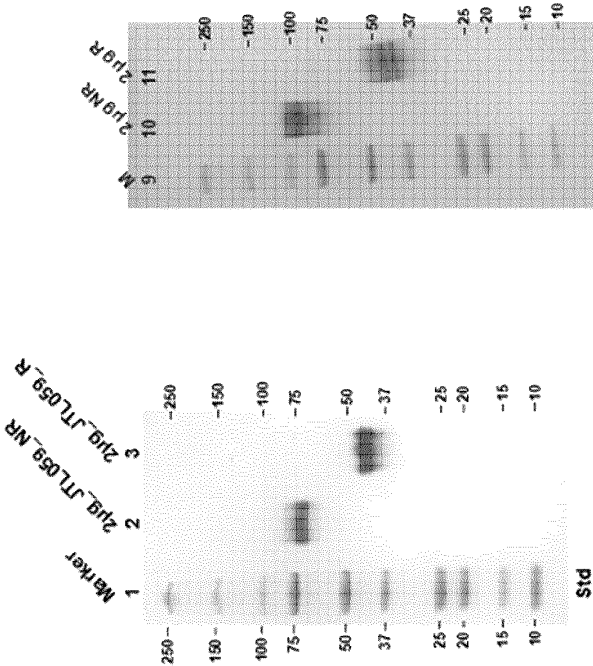


FIG. 14A

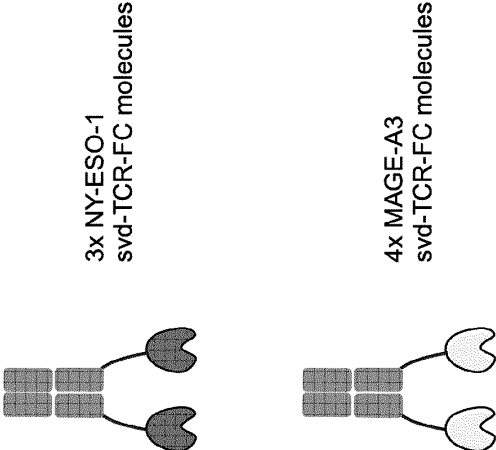


FIG. 15

Melt Curve Plot/Derivative Plot (20240516\_6Qc)

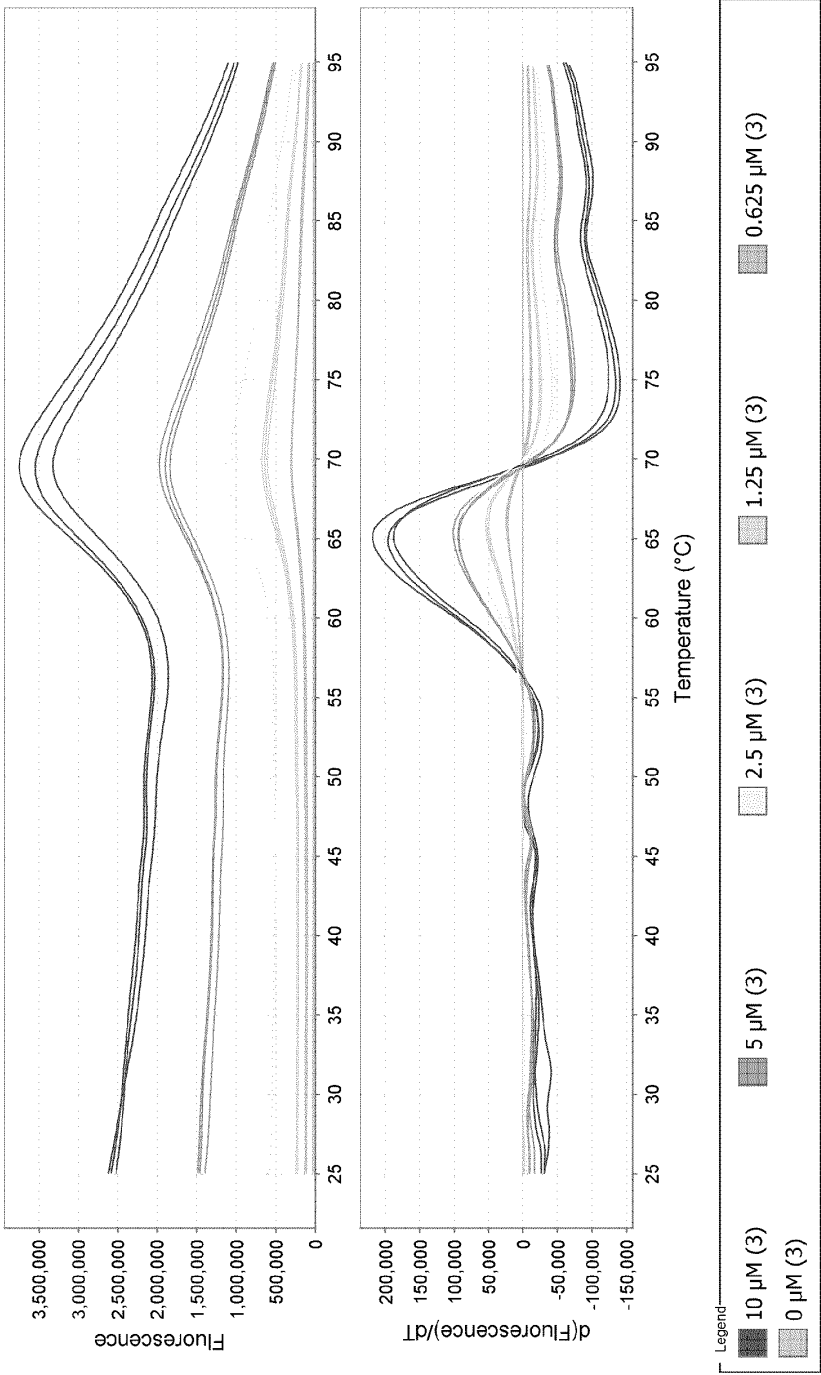


FIG. 16

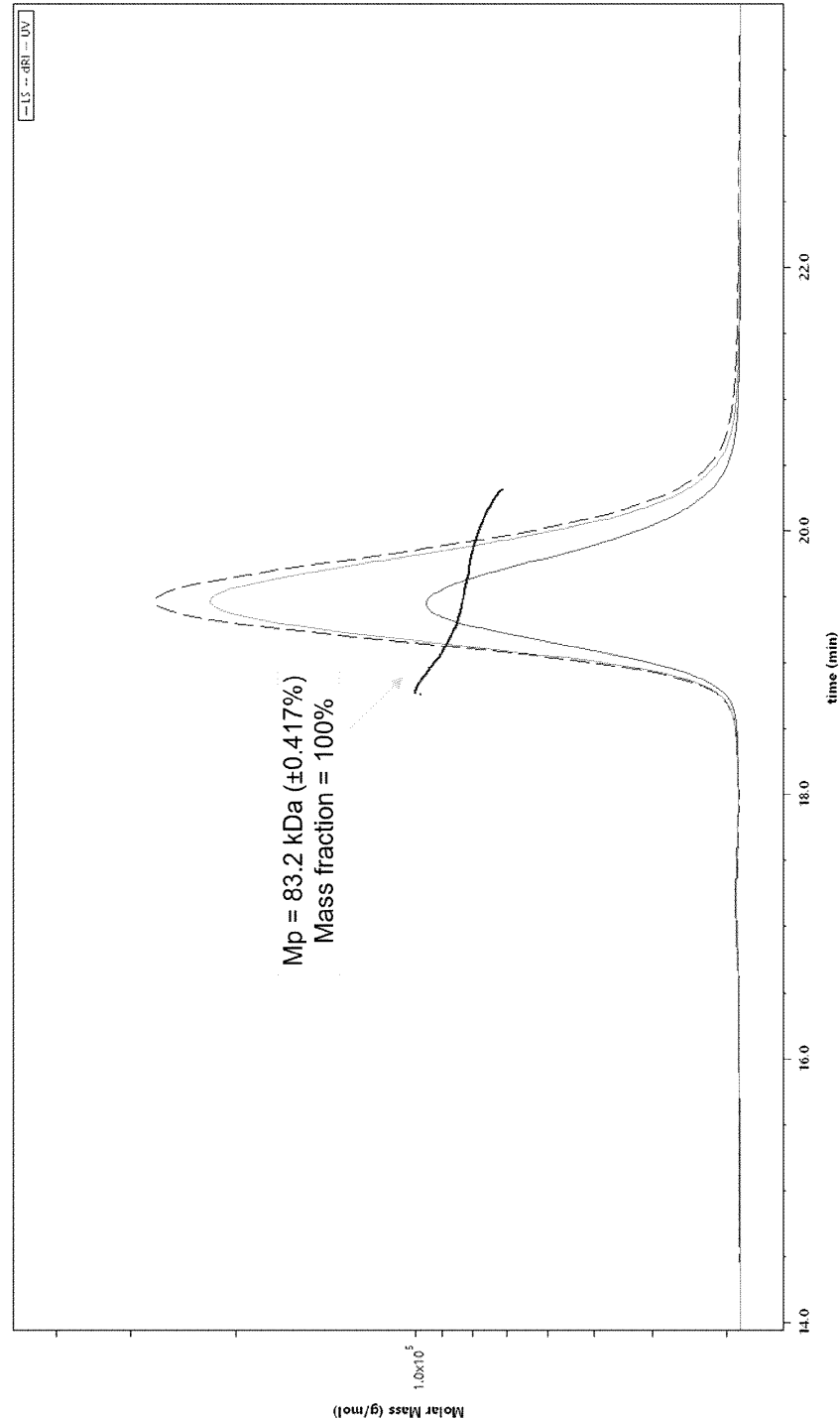


FIG. 17A

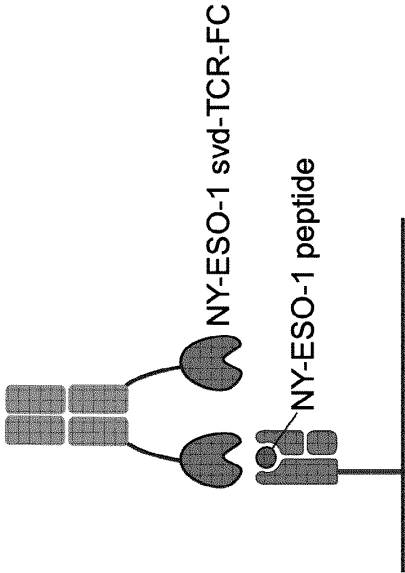


FIG. 17B

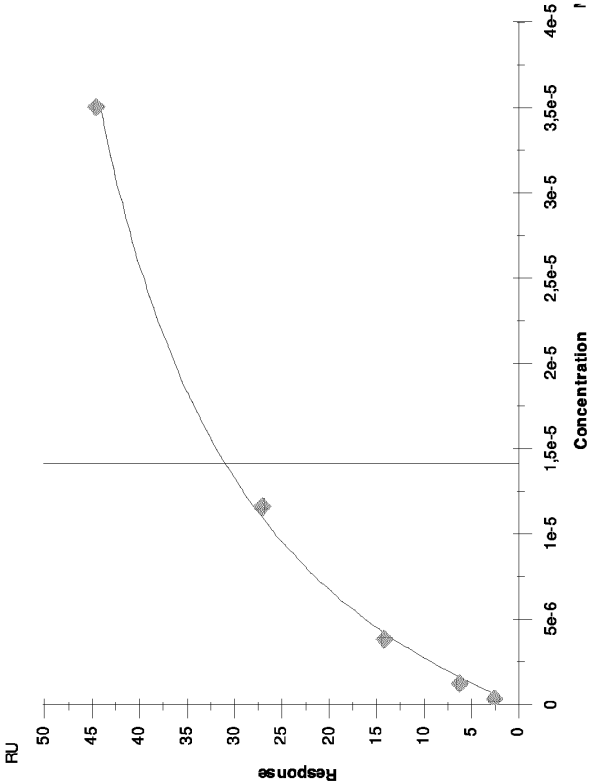


FIG. 18A

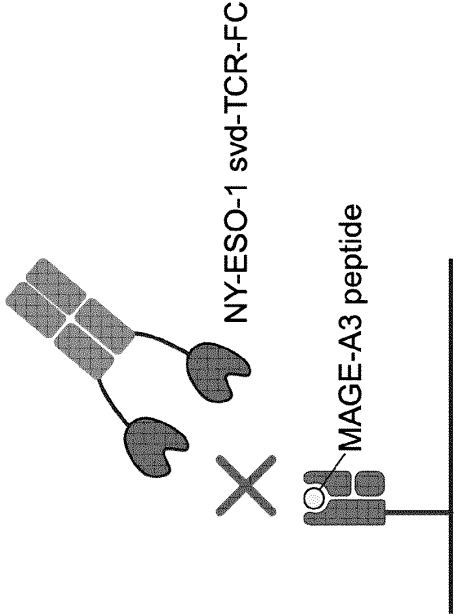


FIG. 18B

