

Figures 1A-1B

A

|                                       | Extracellular       |              | TM        | Intracellular              | Secreted/Co-Expressed     |
|---------------------------------------|---------------------|--------------|-----------|----------------------------|---------------------------|
| CARMA<br>Concept<br>Cytokine<br>CARMA | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) |                           |
|                                       | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | 2A Cytokine(s)            |
|                                       | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | 2A mAb(s)/scFv(s)         |
| mAb CARMA                             | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | 2A                        |
| pep CARMA                             | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | 2A synergistic peptide    |
| Enz CARMA                             | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | 2A enzyme                 |
| DN CARMA                              | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | 2A Dominant Neg. Receptor |
| TAA CARMA                             | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | 2A Tumor assoc. antigen   |
| CRISPR CARMA                          | Targeting Domain(s) | Hinge Domain | TM Domain | Domain Signaling Domain(s) | CRISPR Gene Editing       |

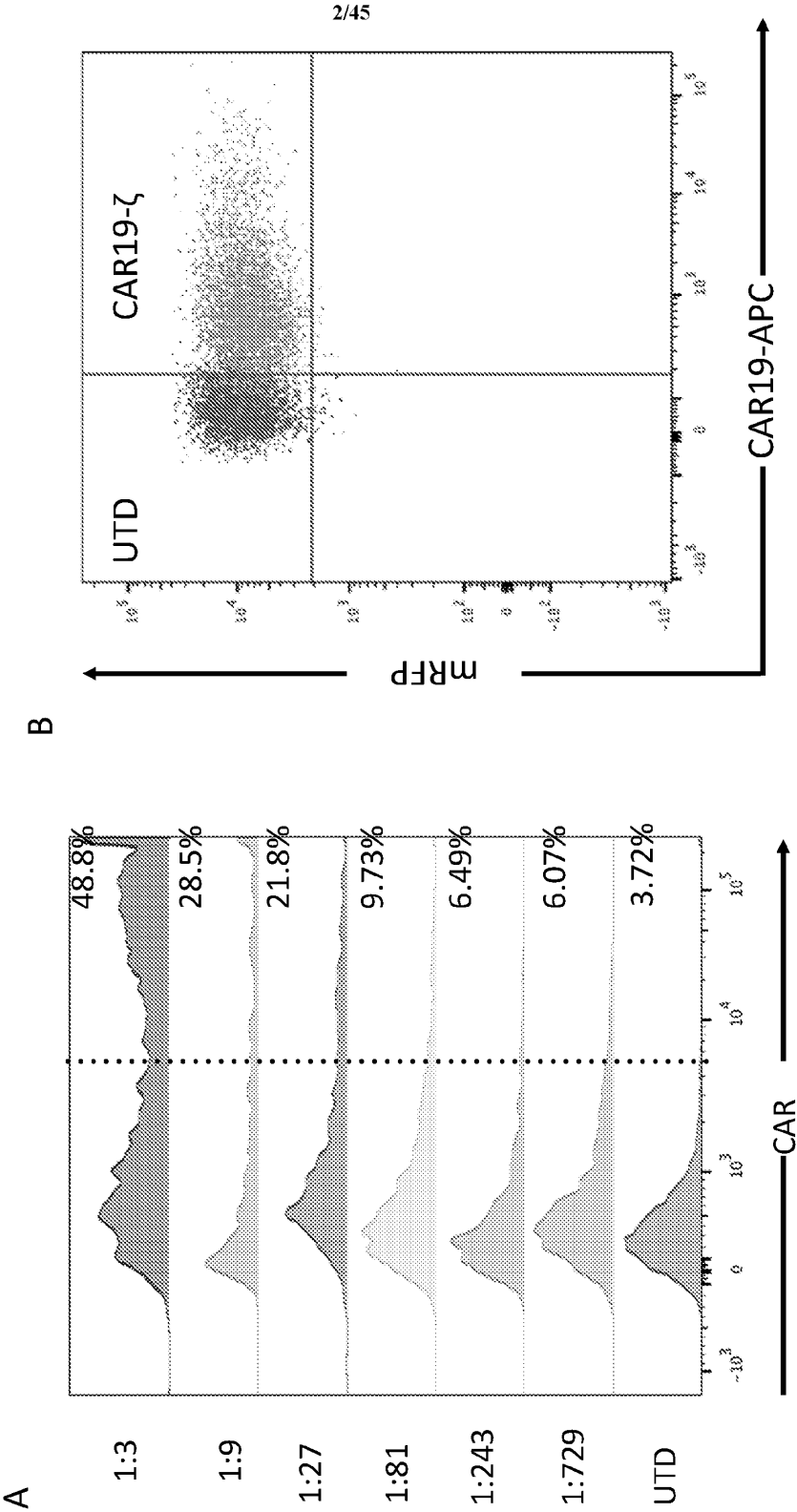
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B

|              |                       |           |        |          |
|--------------|-----------------------|-----------|--------|----------|
| CARMA-ζ      | Antigen Specific scFv | CD8 Hinge | CD8 TM | CD8-ζ    |
| CARMA-γ      | Antigen Specific scFv | CD8 Hinge | CD8 TM | FCγR1-γ  |
| CARMA-Dectin | Antigen Specific scFv | CD8 Hinge | CD8 TM | Dectin-1 |

\* Specific but not exclusive examples of macrophage CAR construct design.

Figures 2A-2B



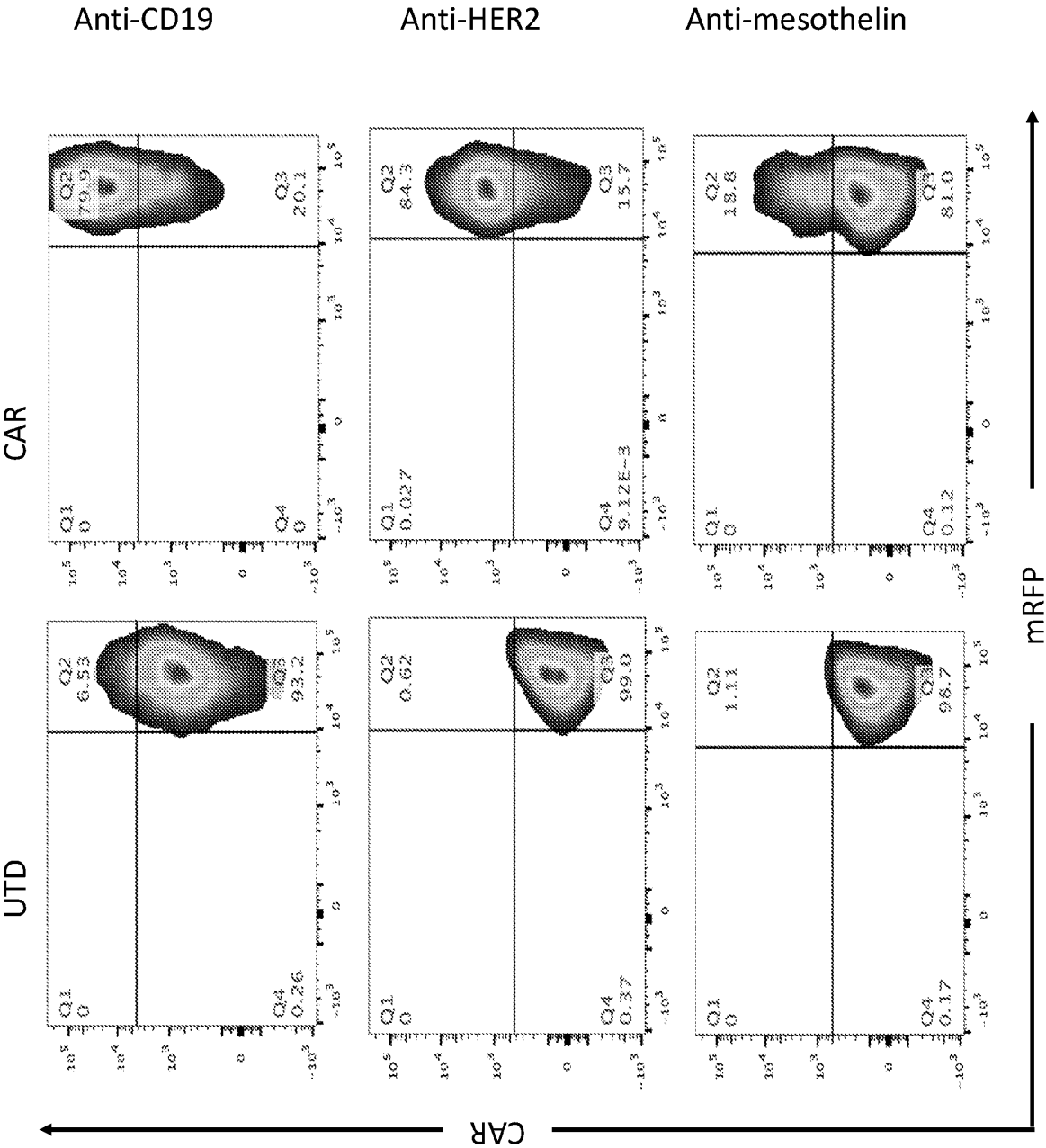
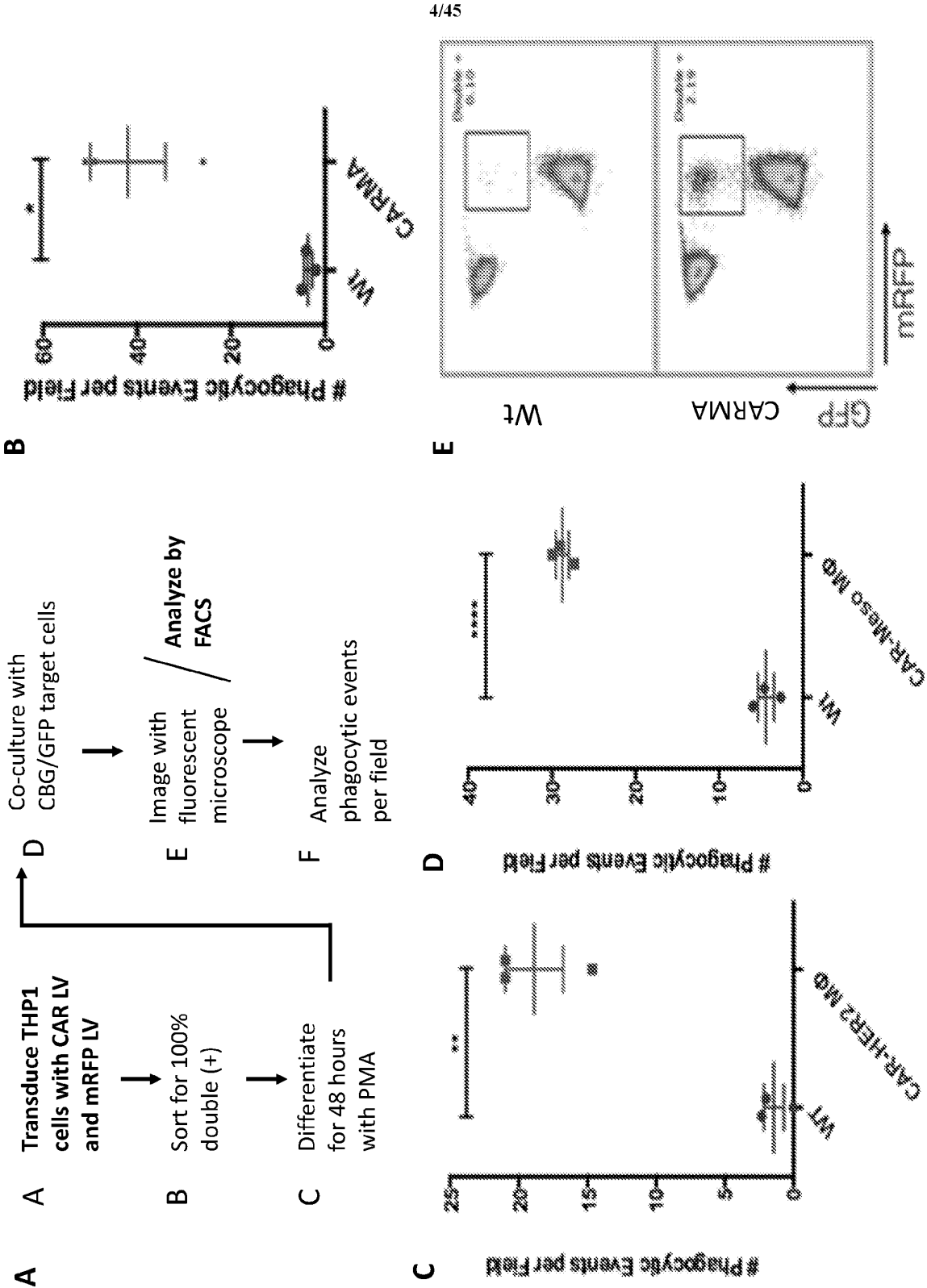
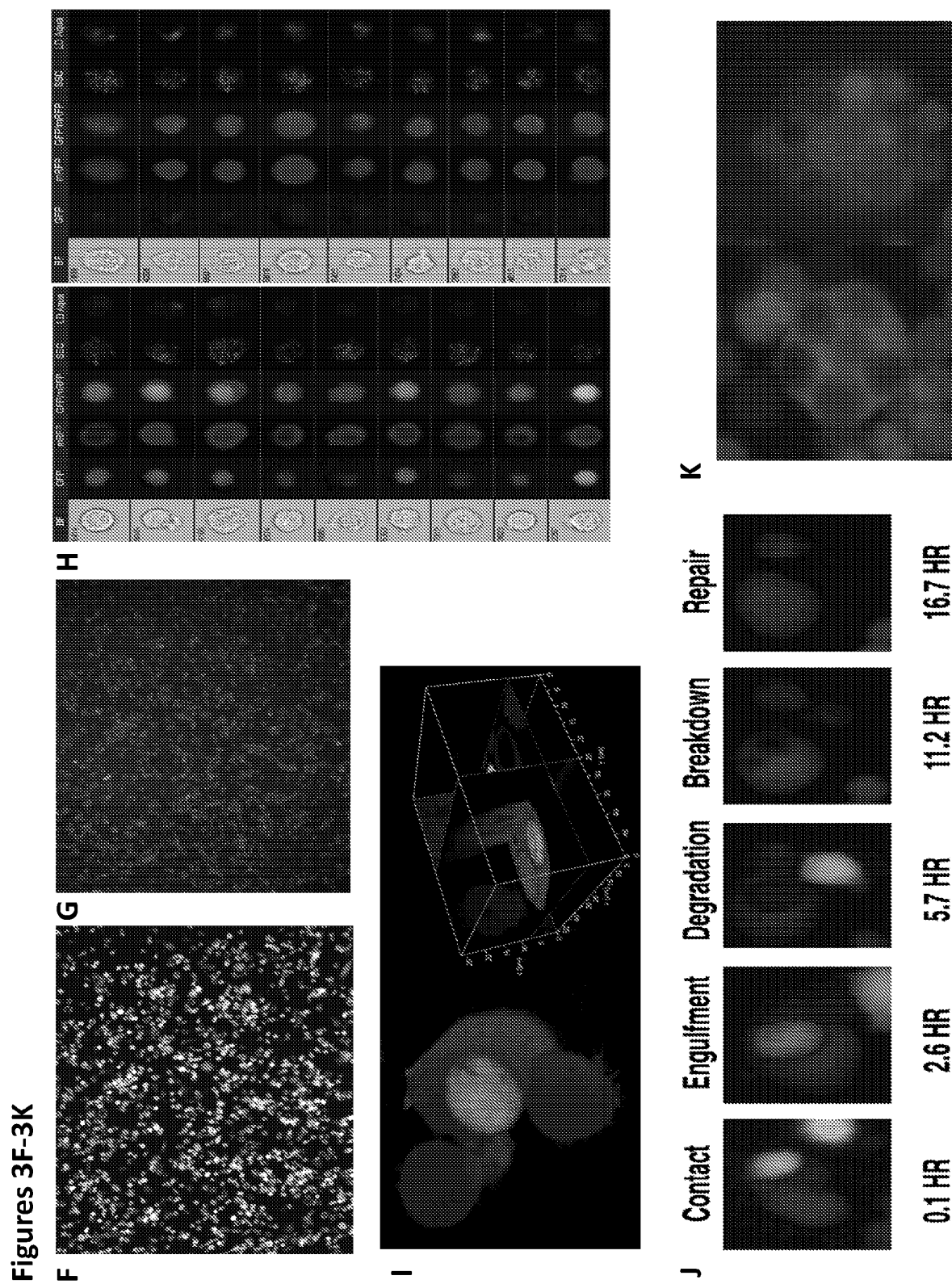


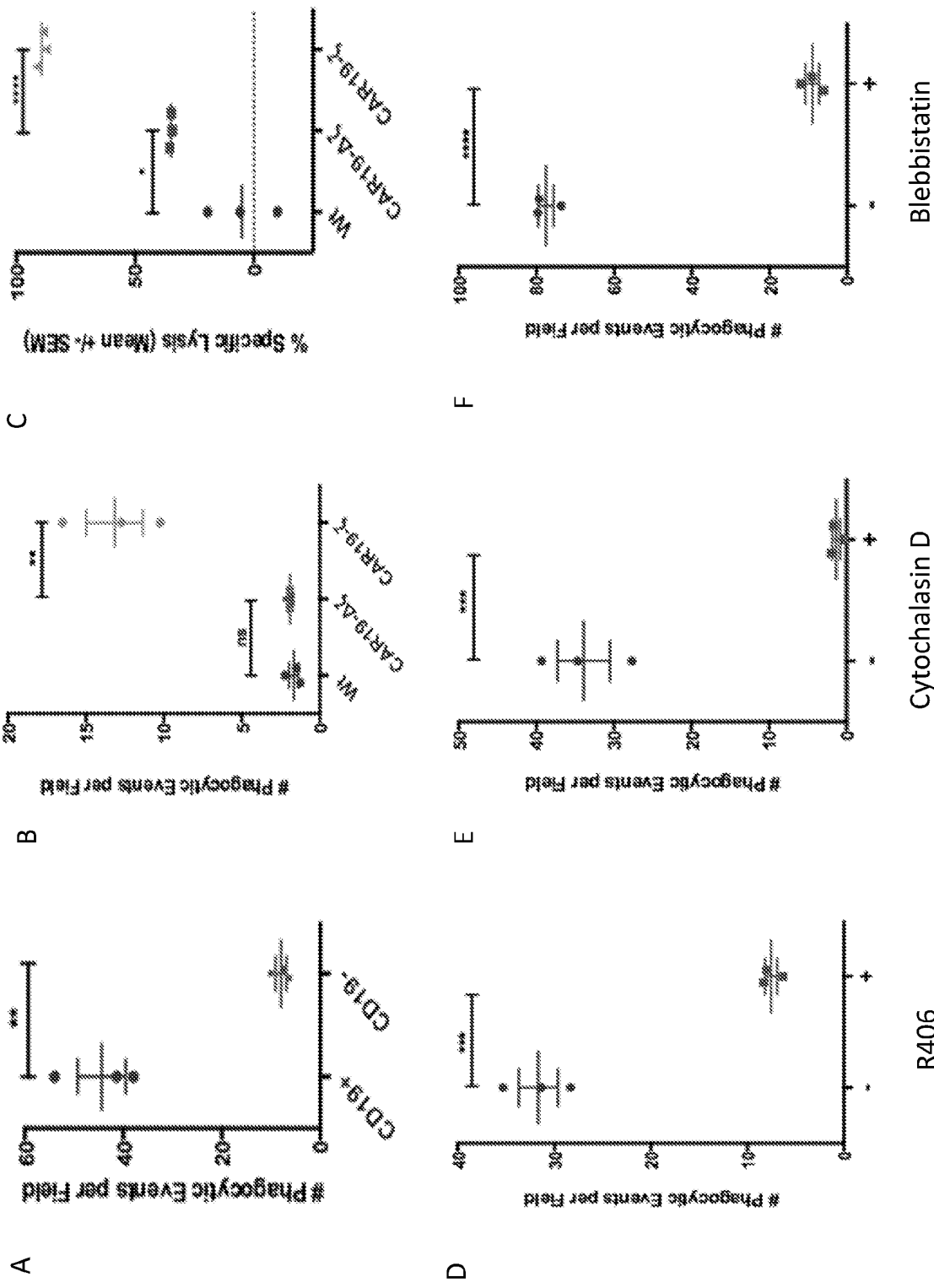
Figure 2C

Figures 3A-3E

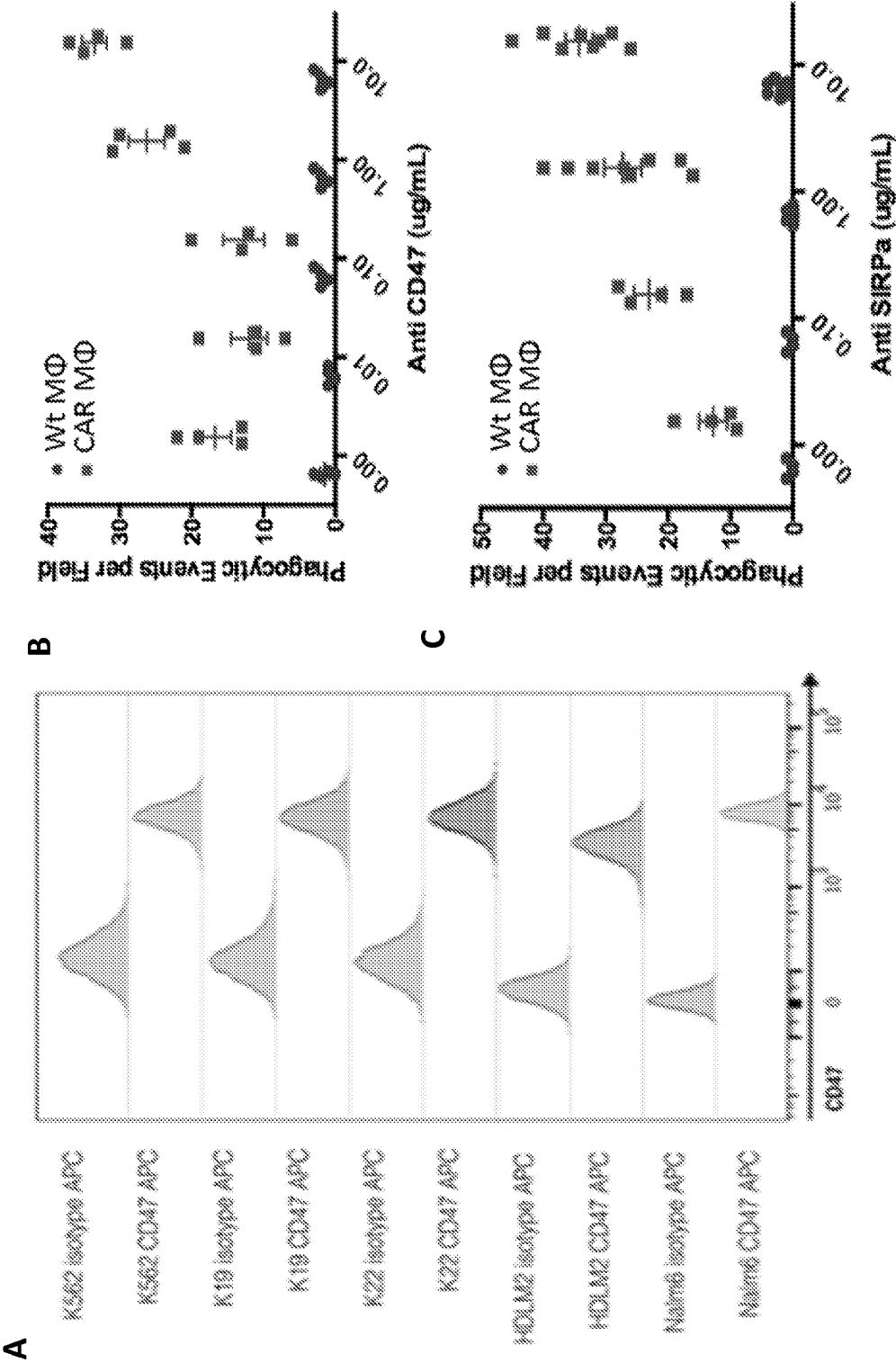




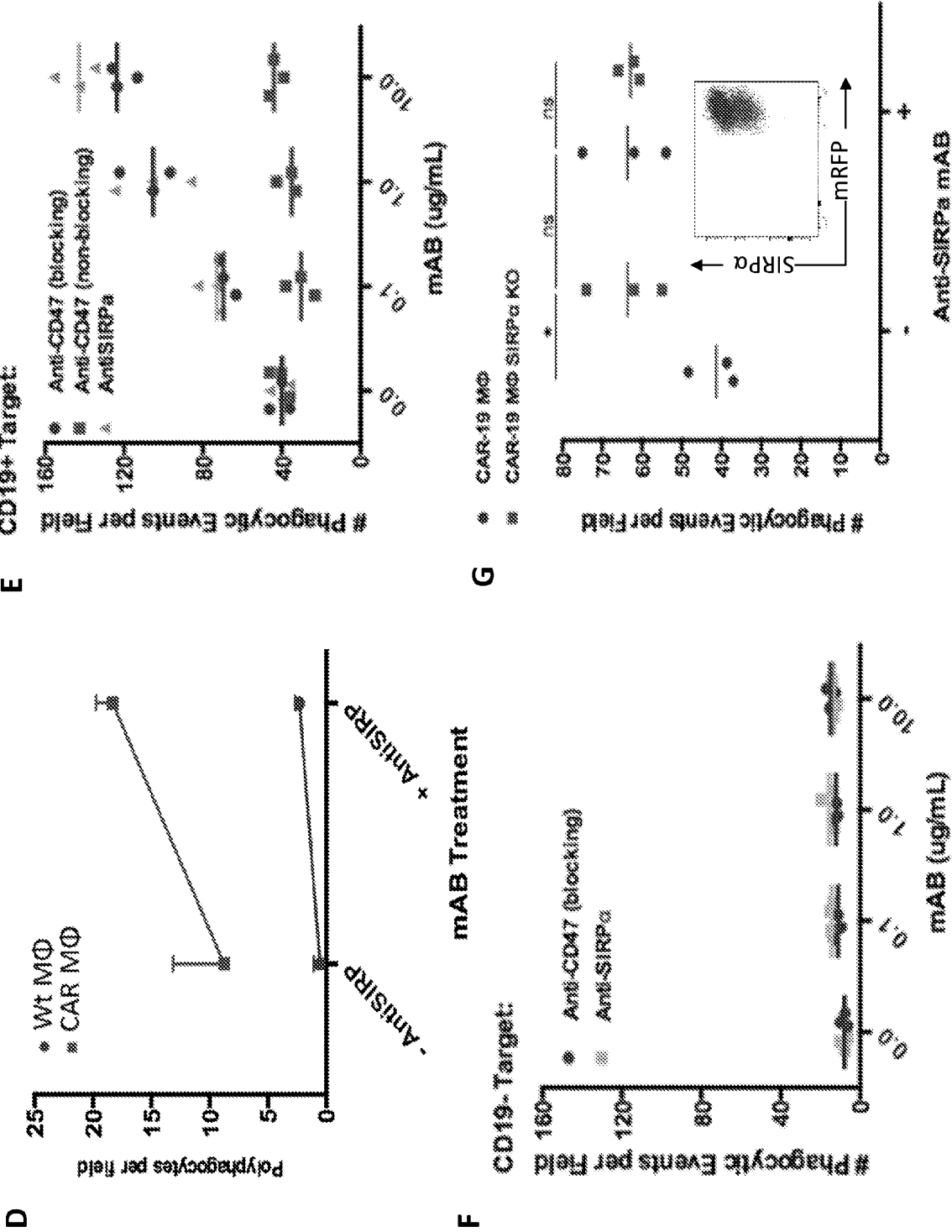
Figures 4A-4F



Figures 5A-5C



Figures 5D-5G



Figures 6A-6D

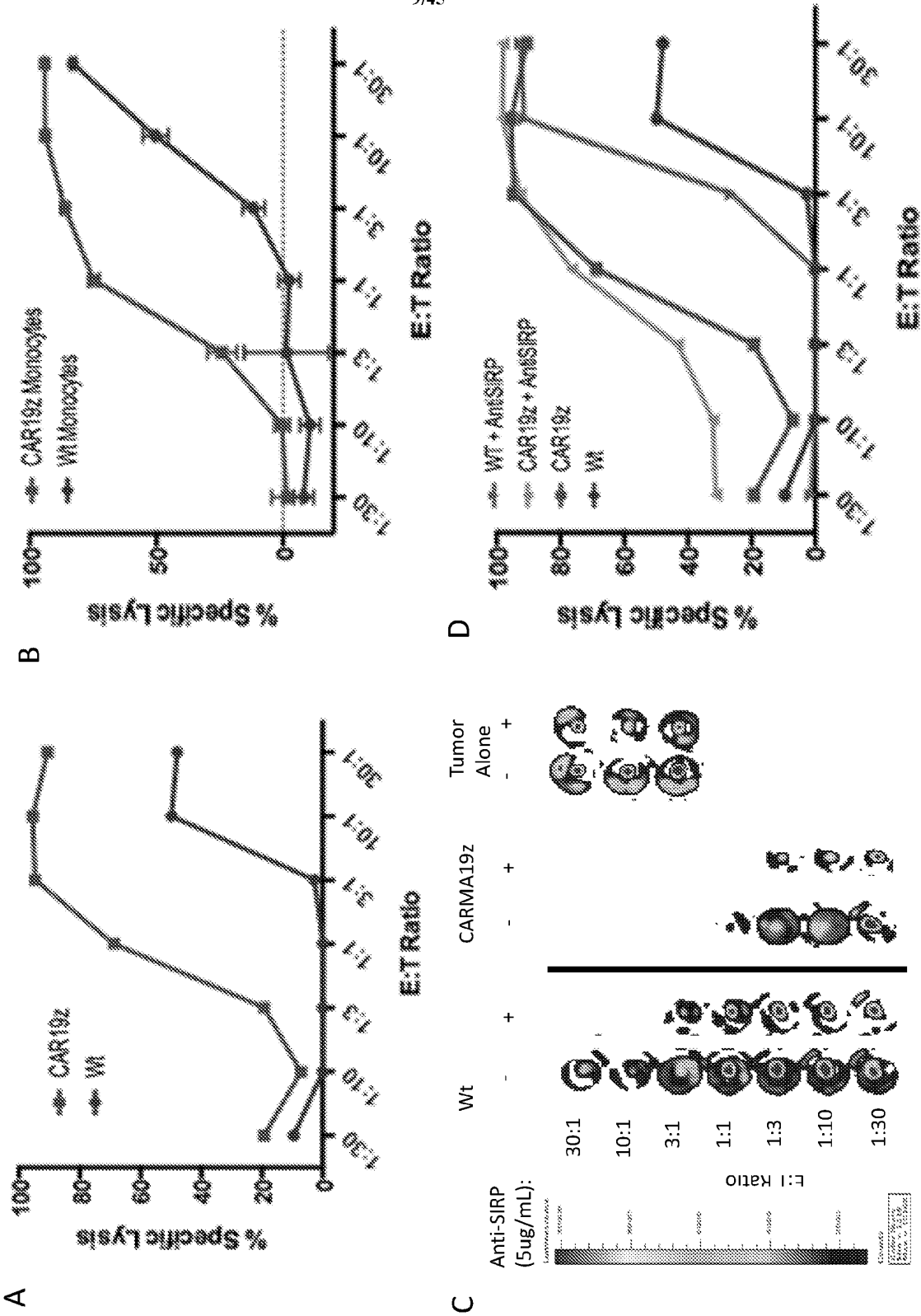
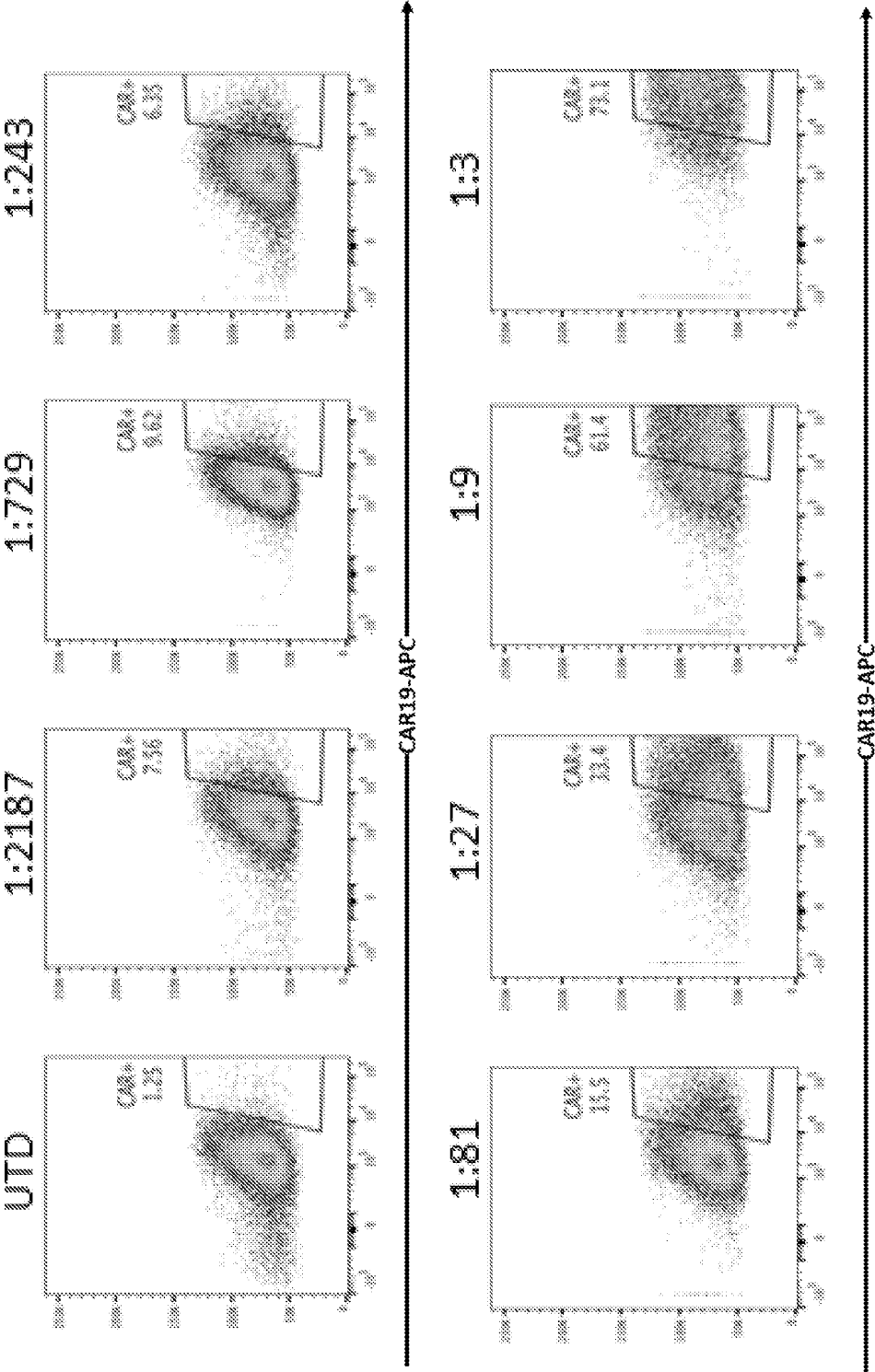
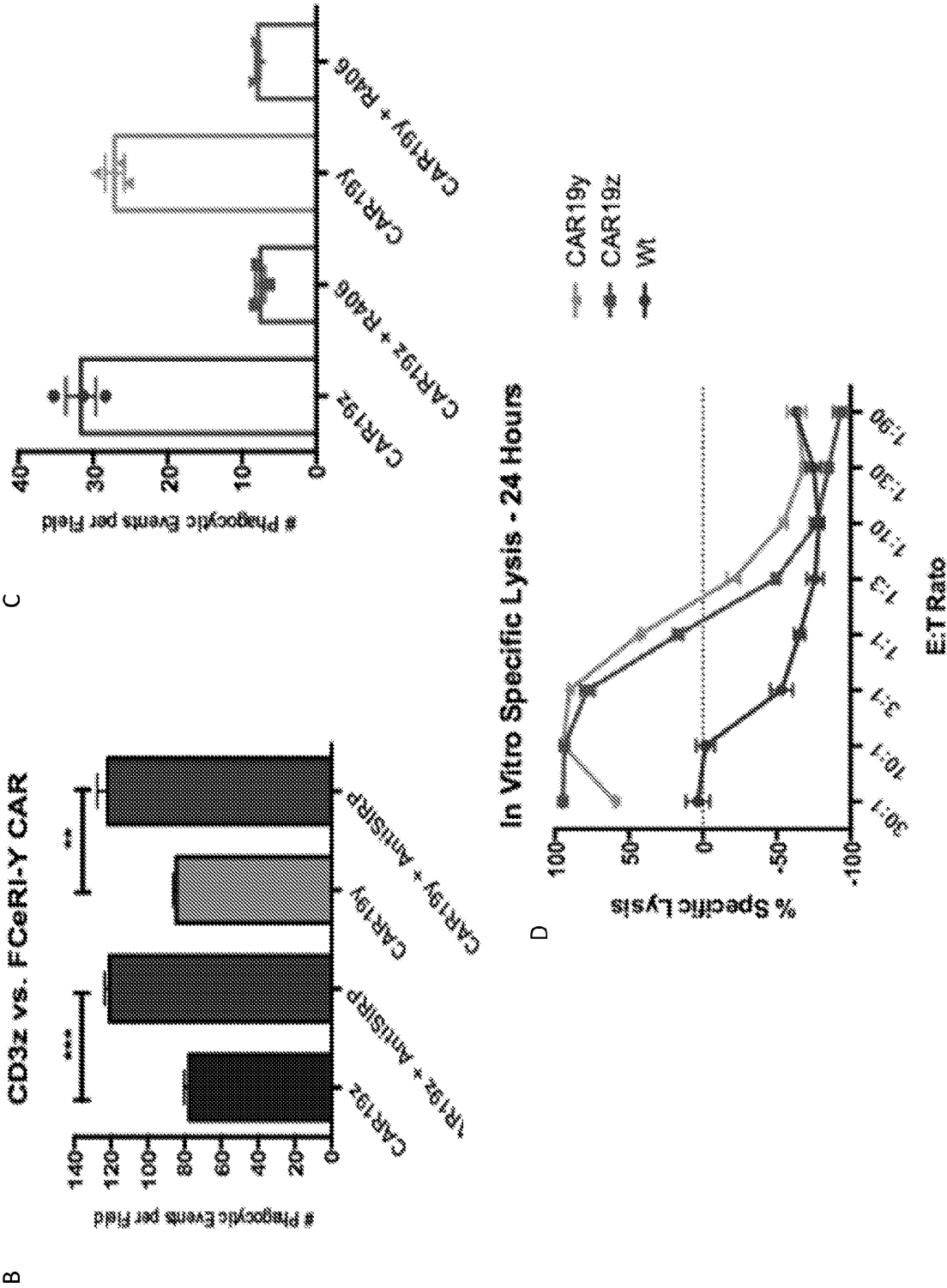


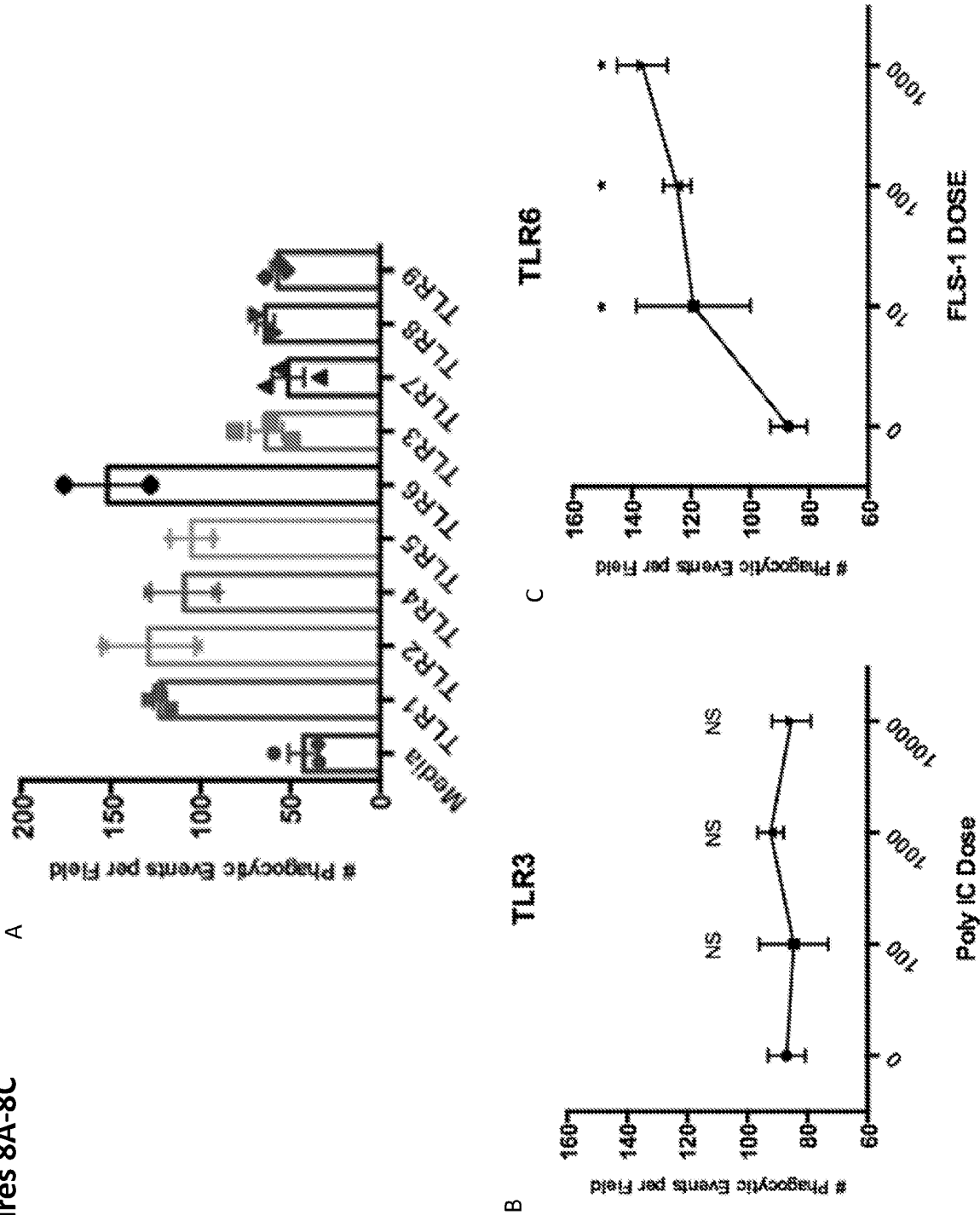
Figure 7A



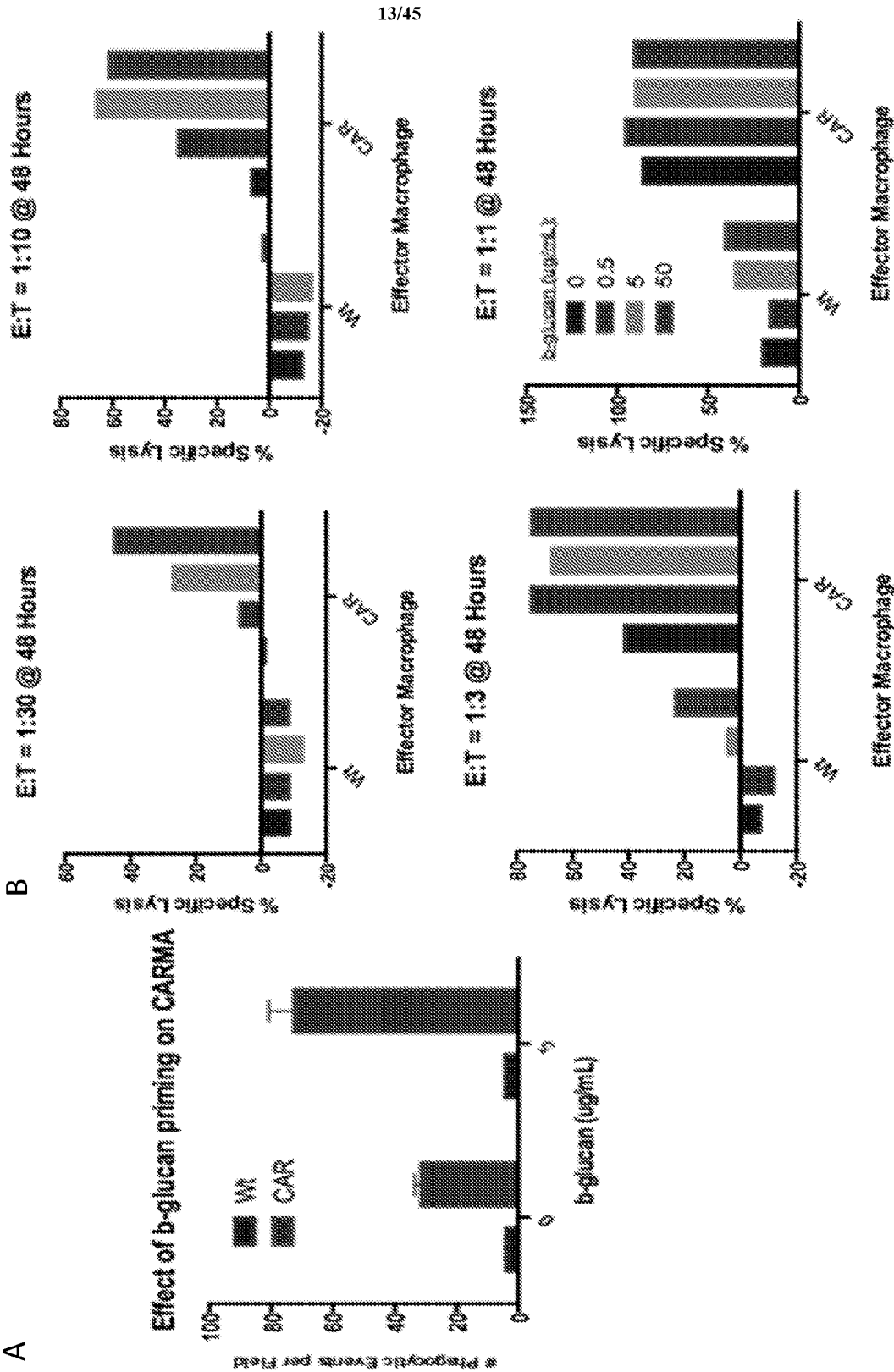
Figures 7B-7D



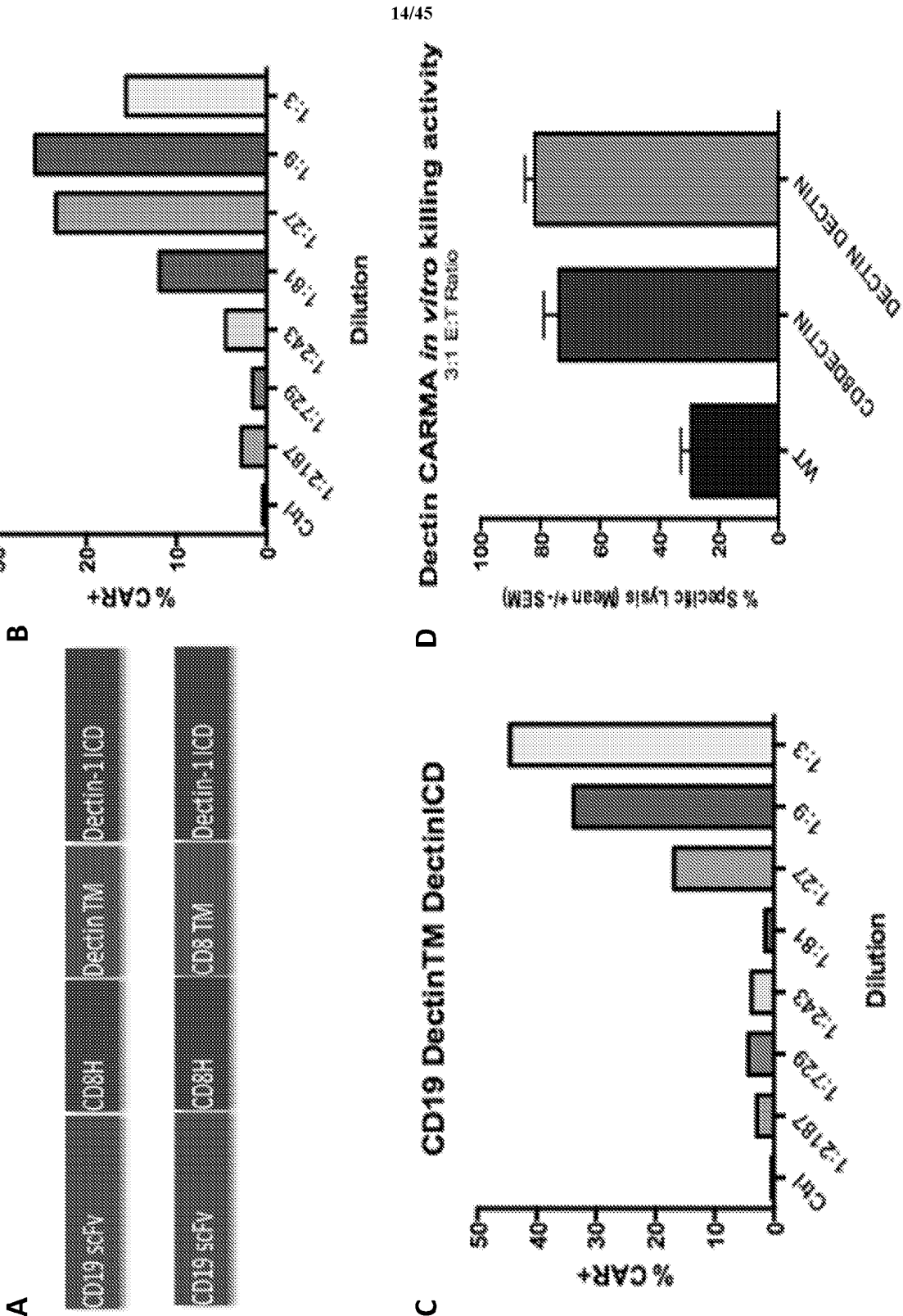
Figures 8A-8C



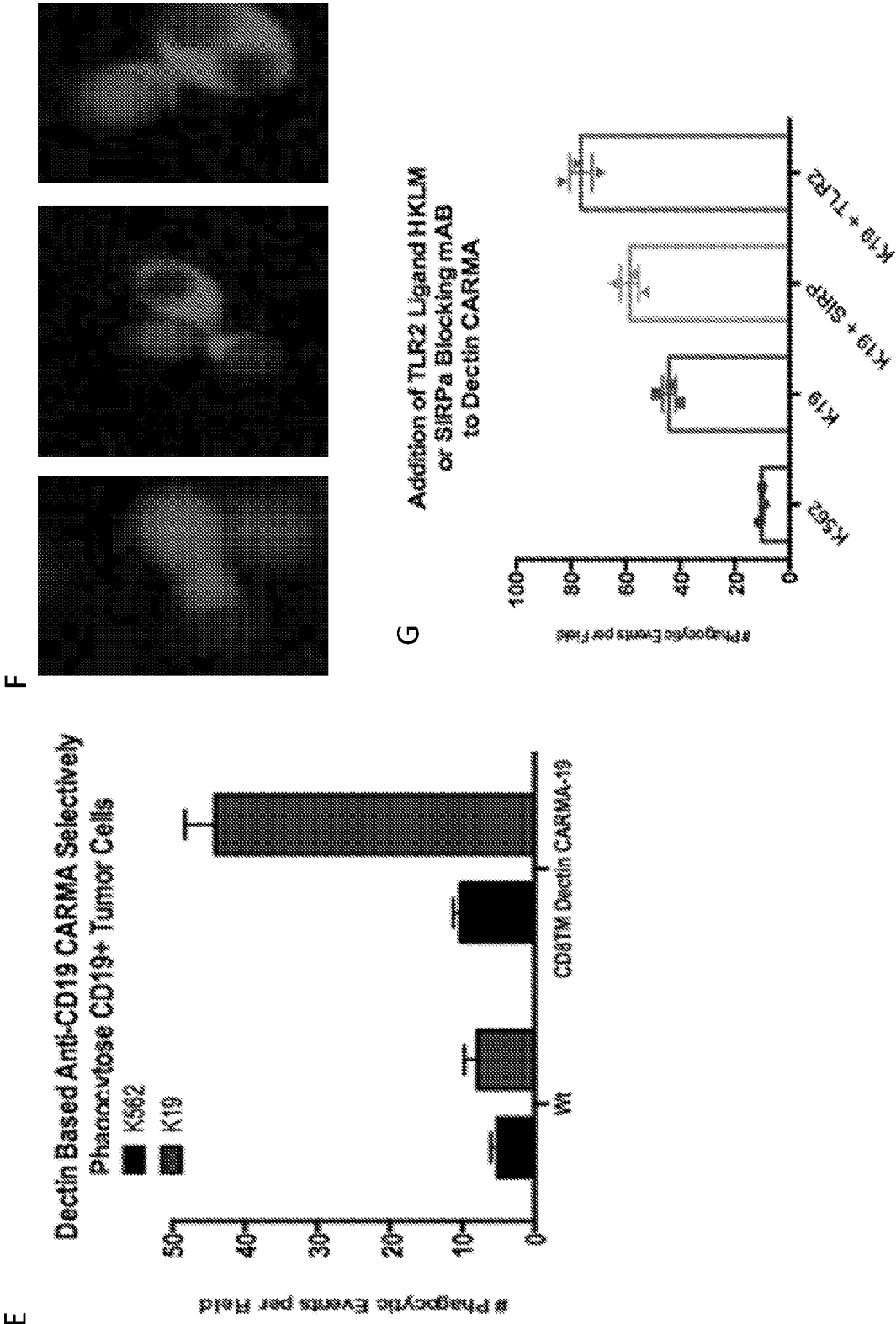
Figures 9A-9B



Figures 10A-10D



Figures 10E-10G



Figures 11A-11C

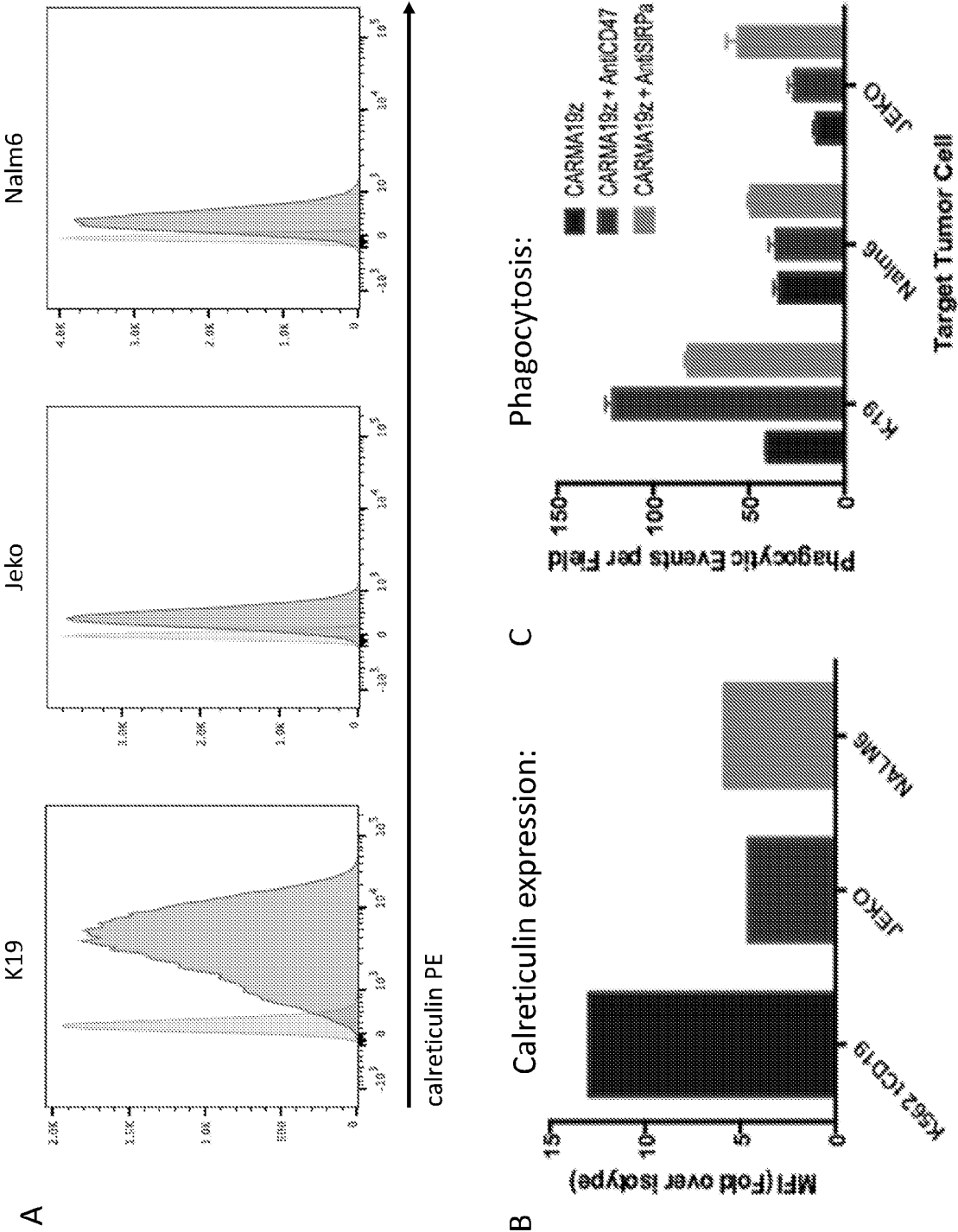


Figure 12A

Primary human monocyte gating strategy, viability, and anti-HER2 CAR expression

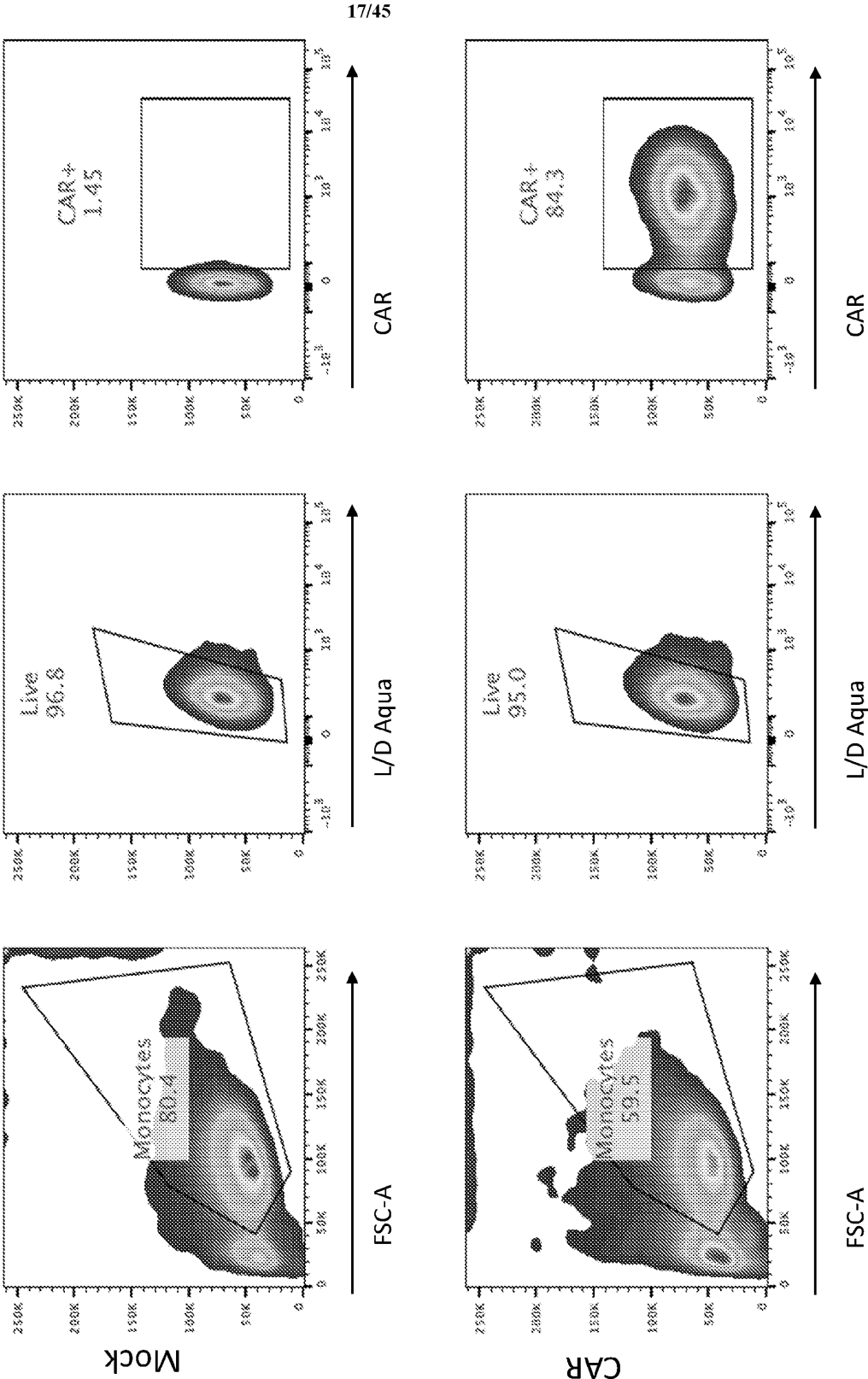
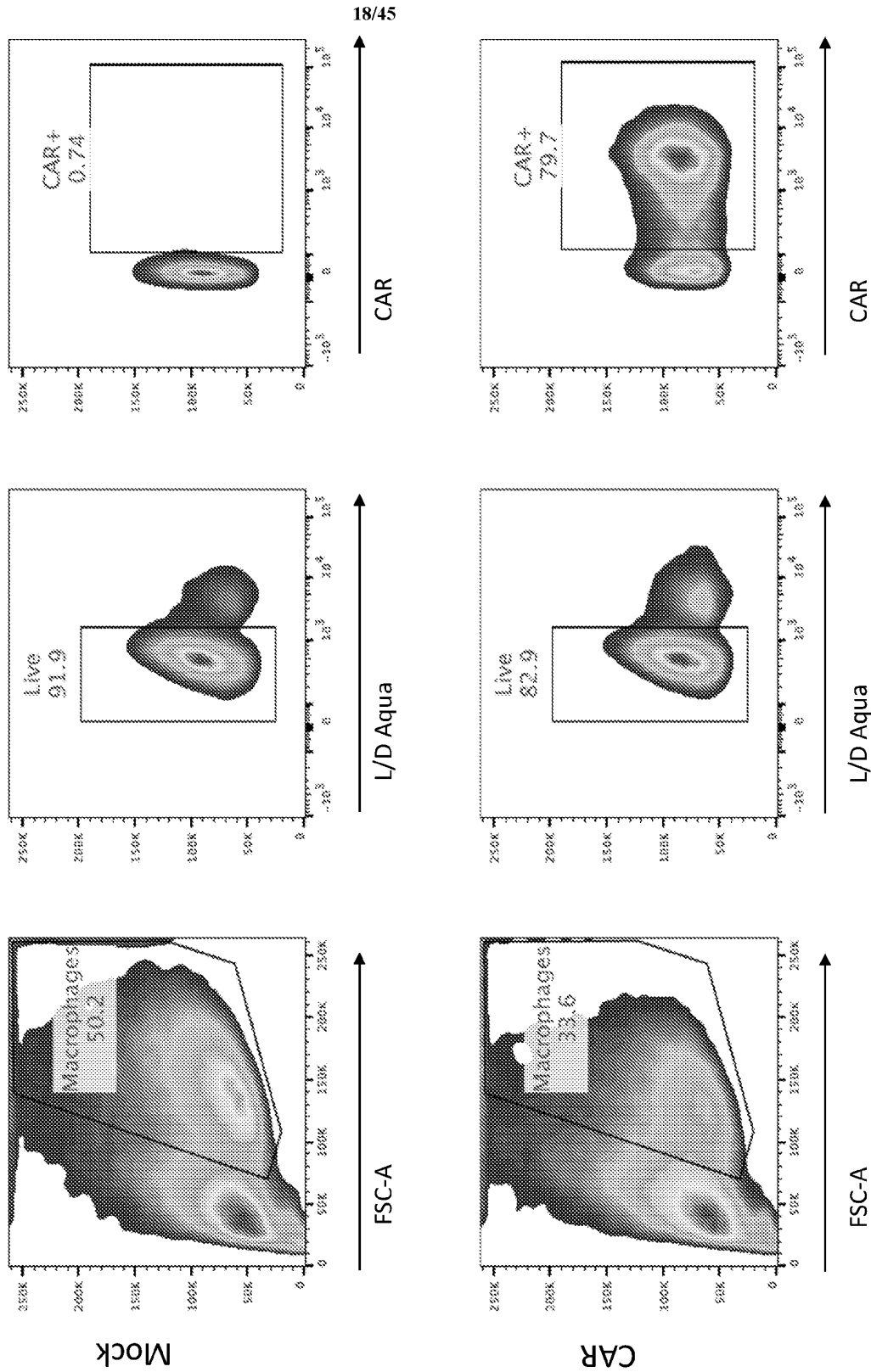


Figure 12B

Primary human macrophage gating strategy, viability, and anti-HER2 CAR expression



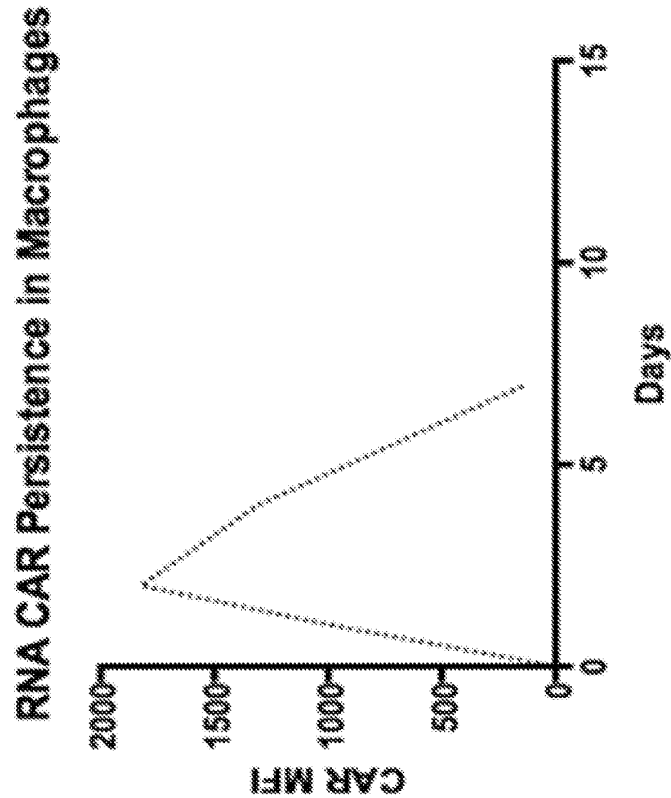


Figure 12C

Figures 13A-13B

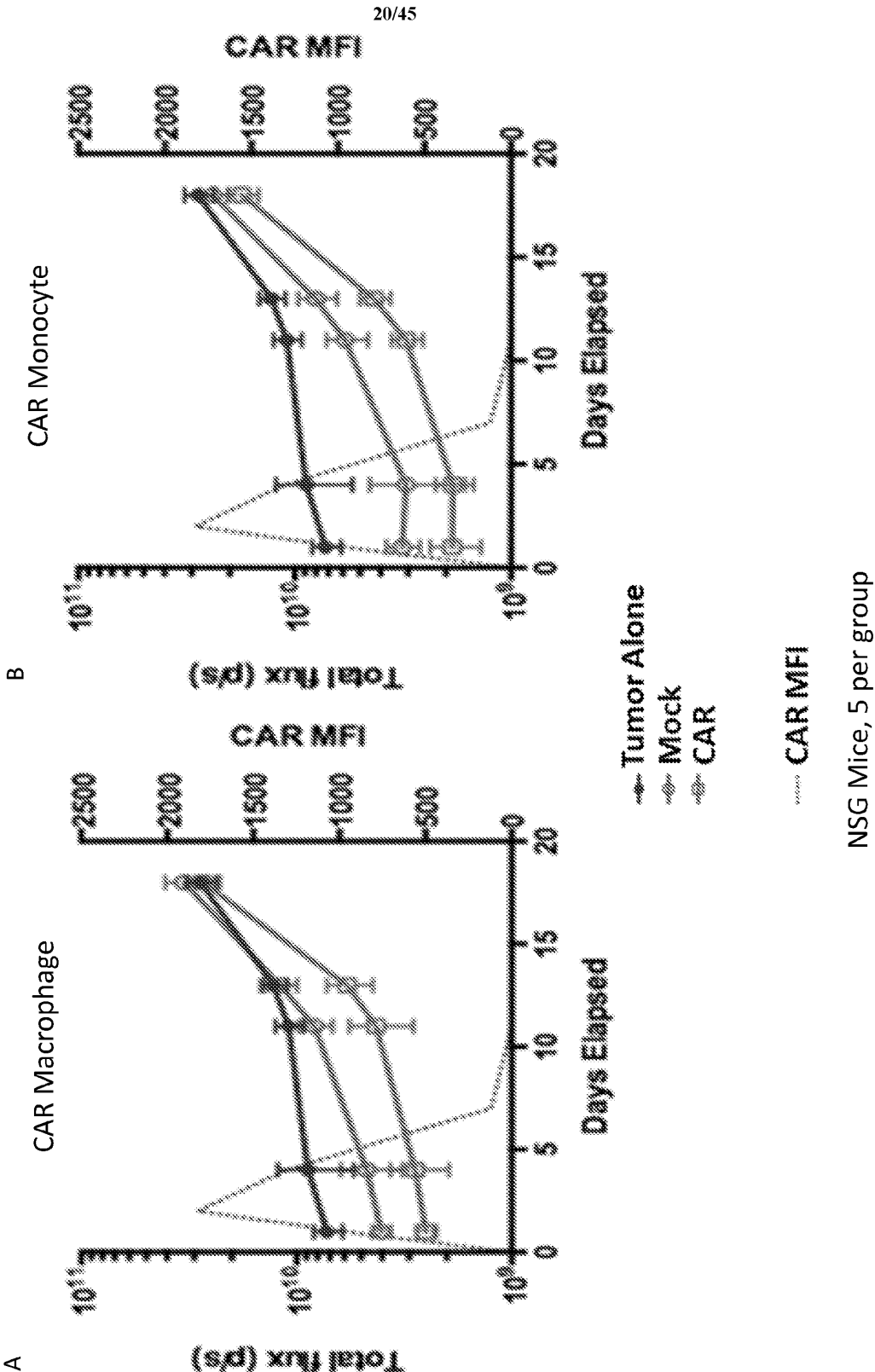


Figure 14A

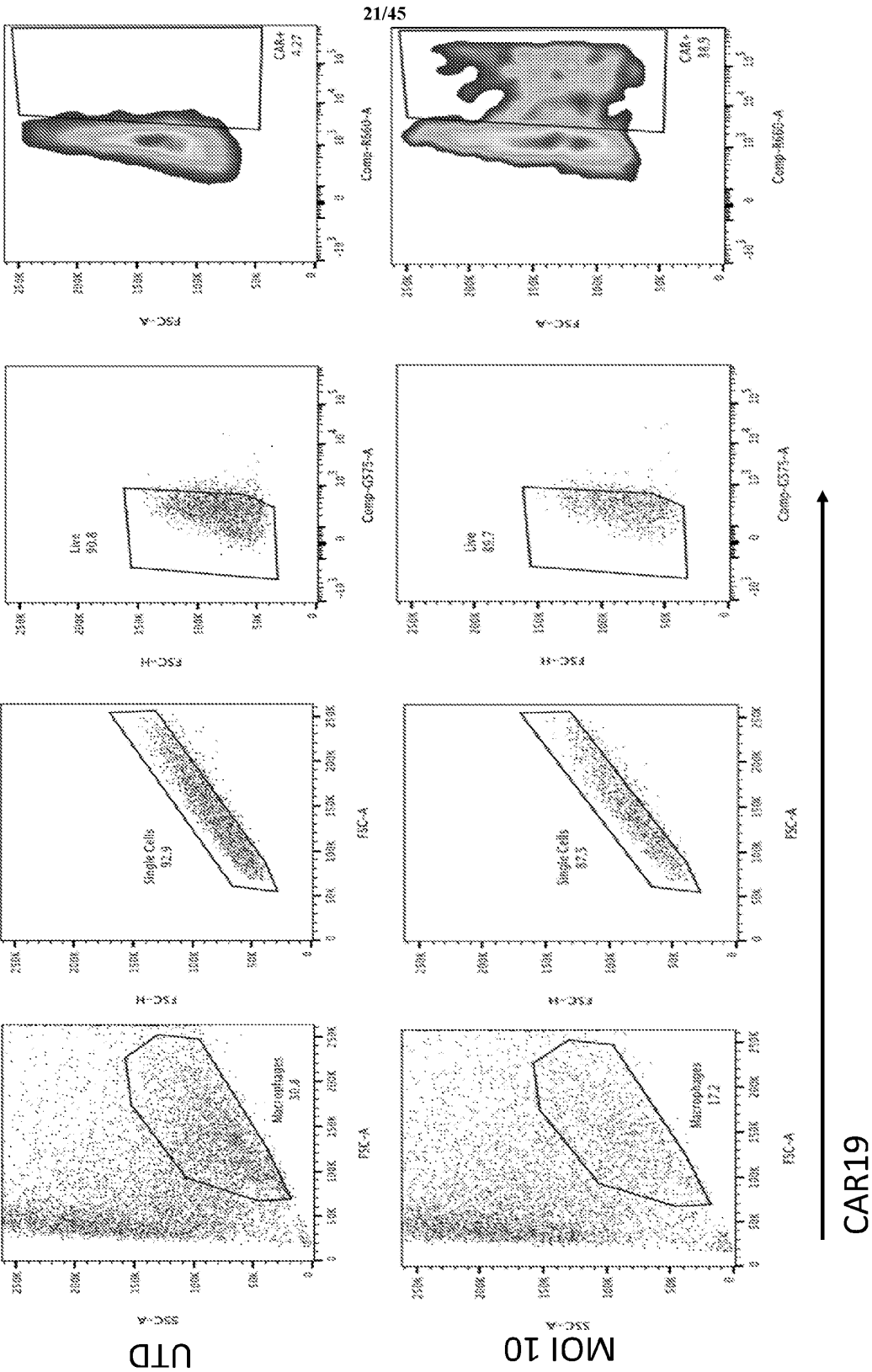


Figure 14B

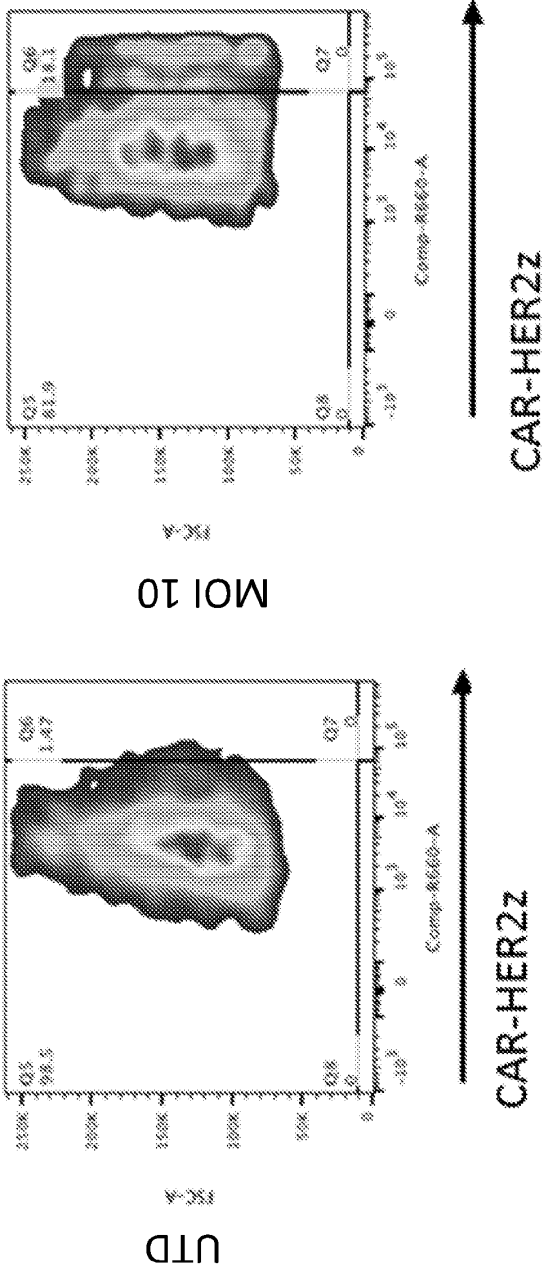
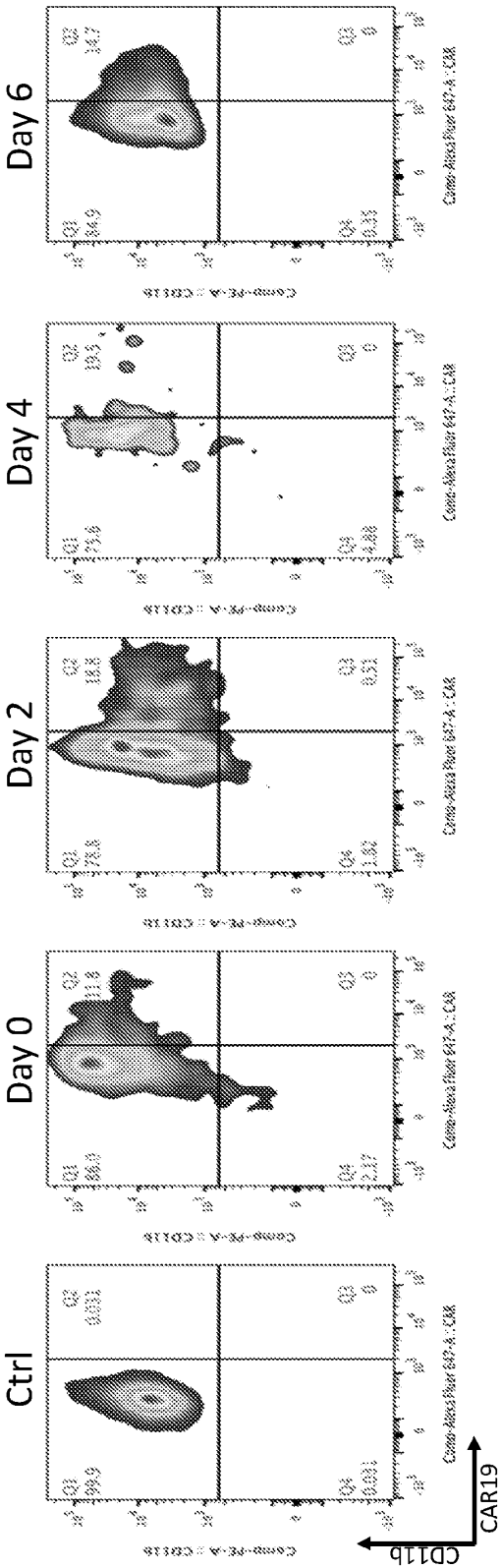
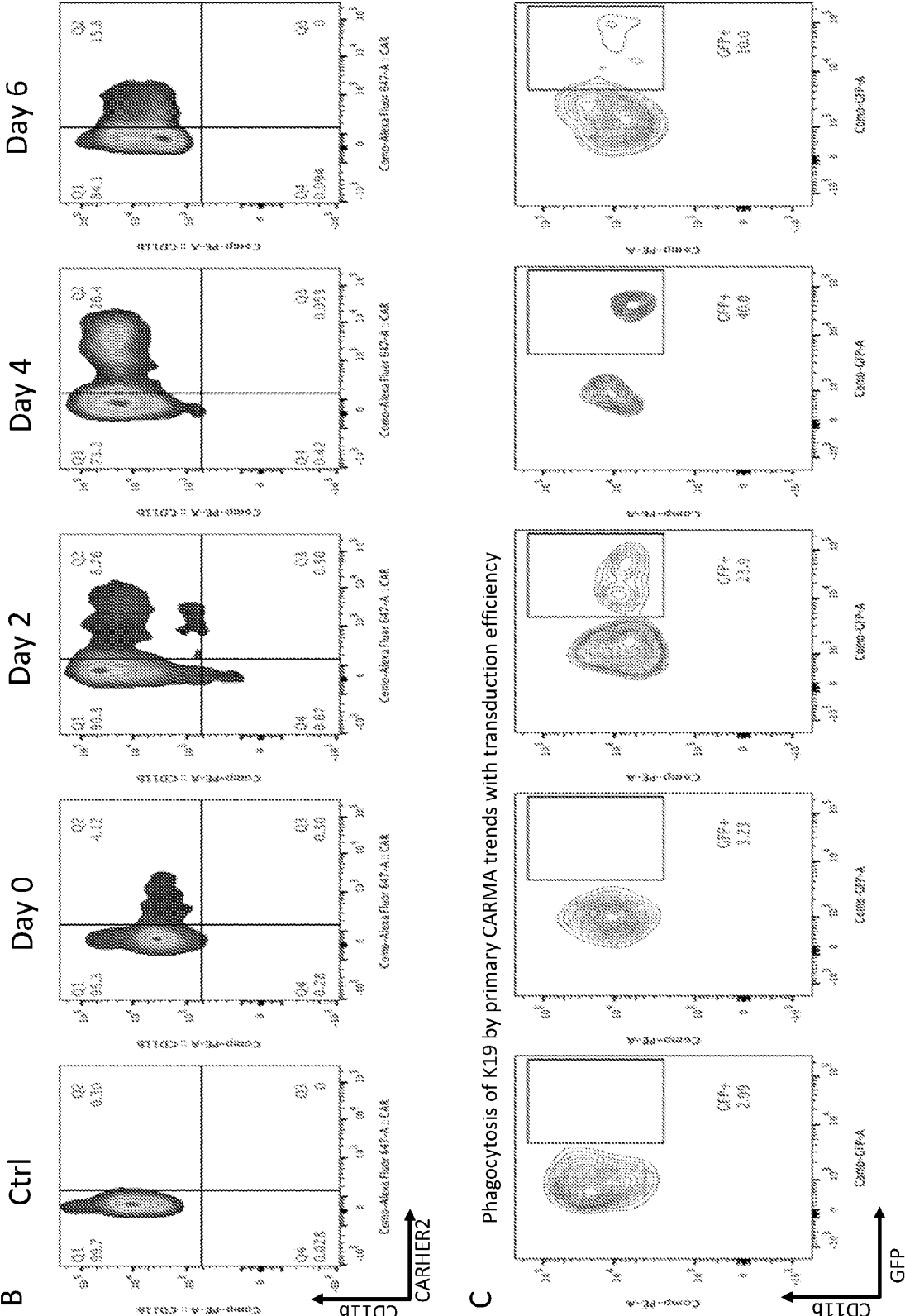


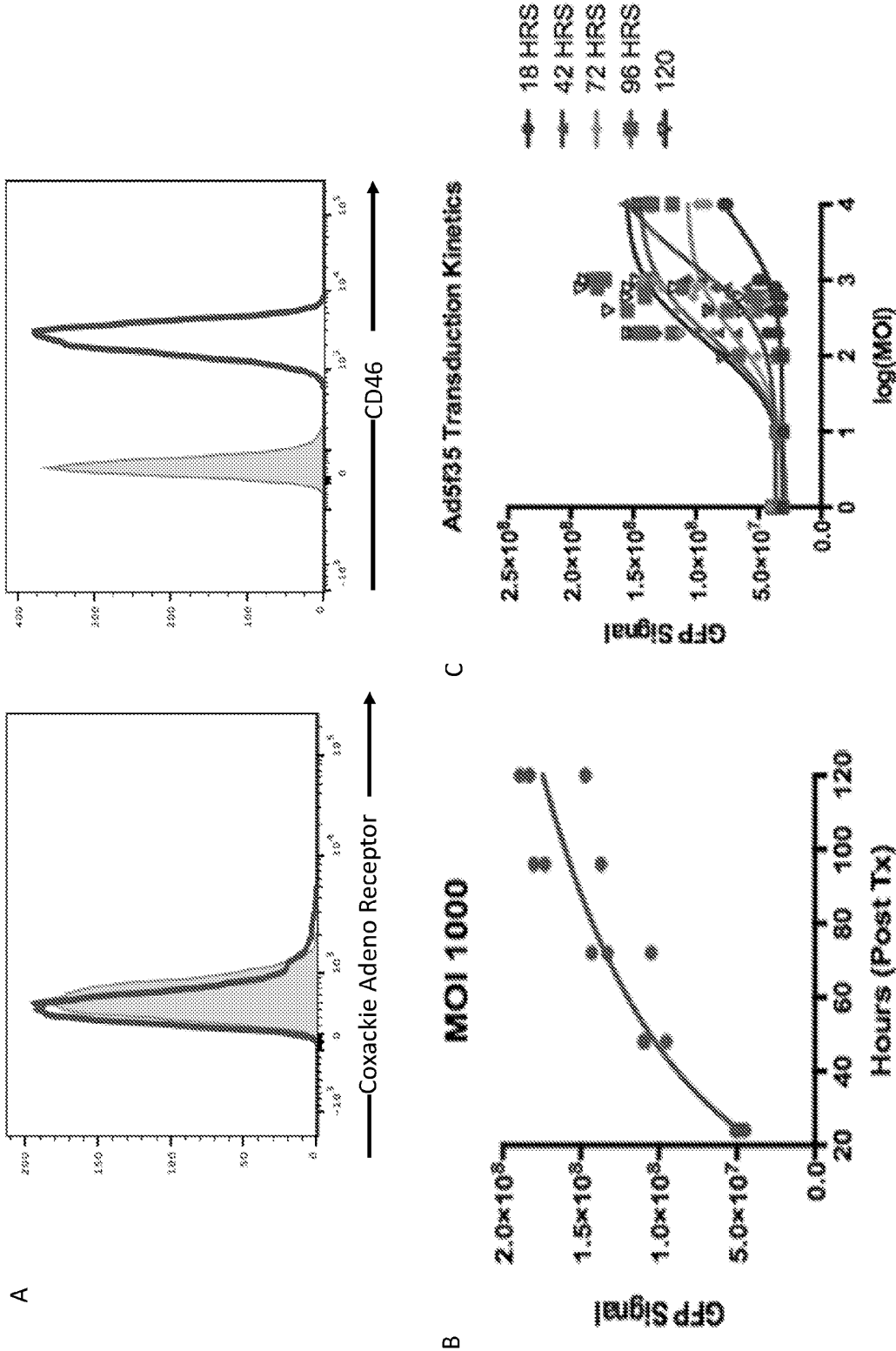
Figure 15A



Figures 15B-15C



Figures 16A-16C



Figures 16D-16E

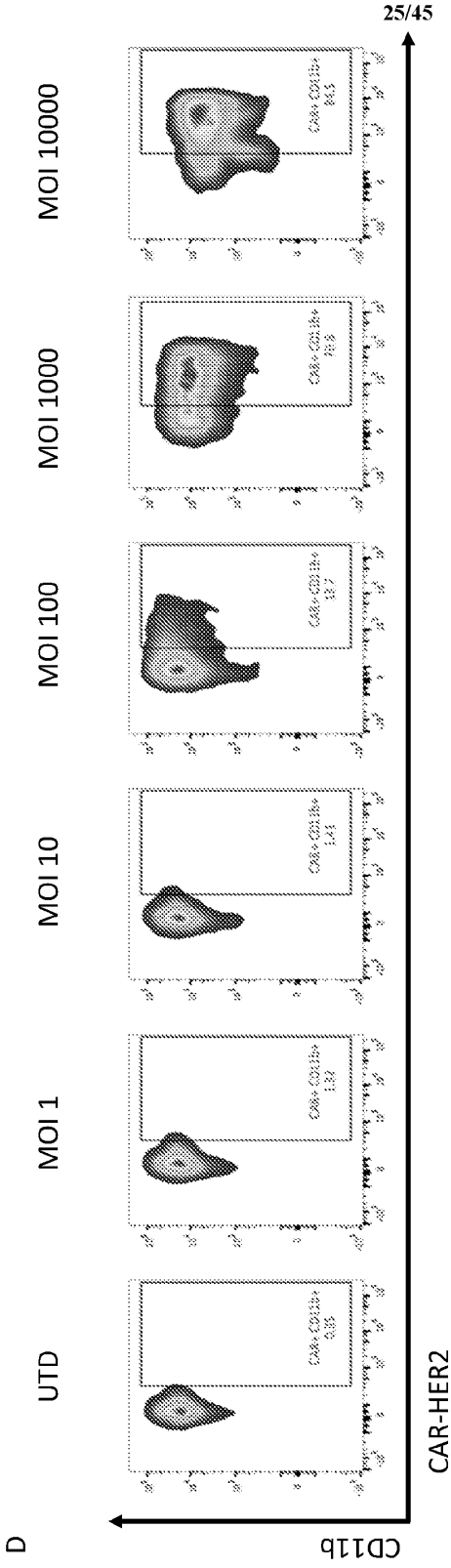
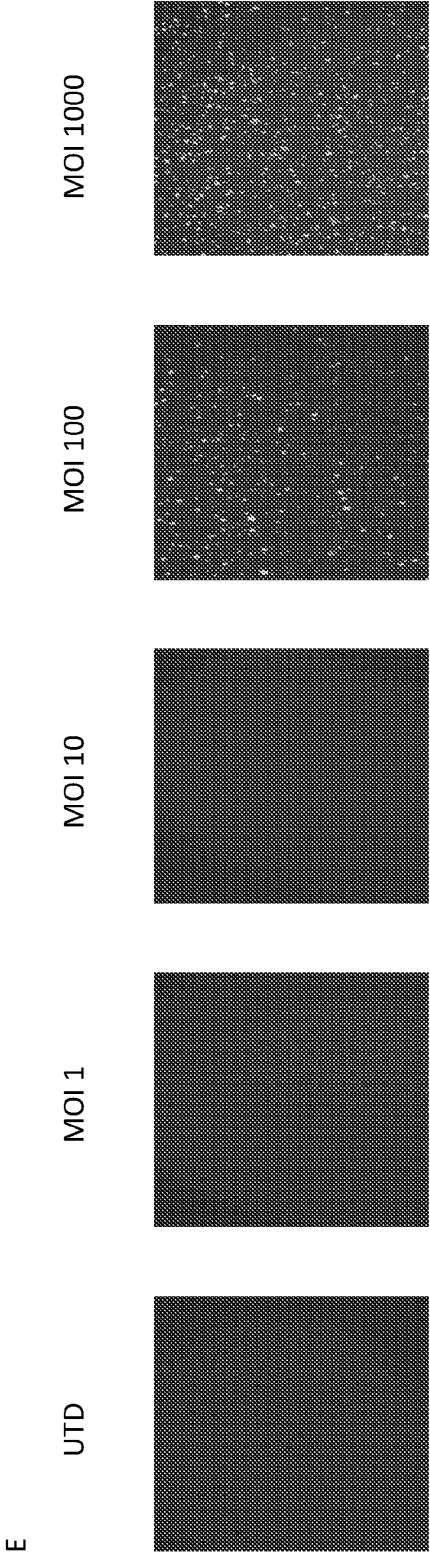
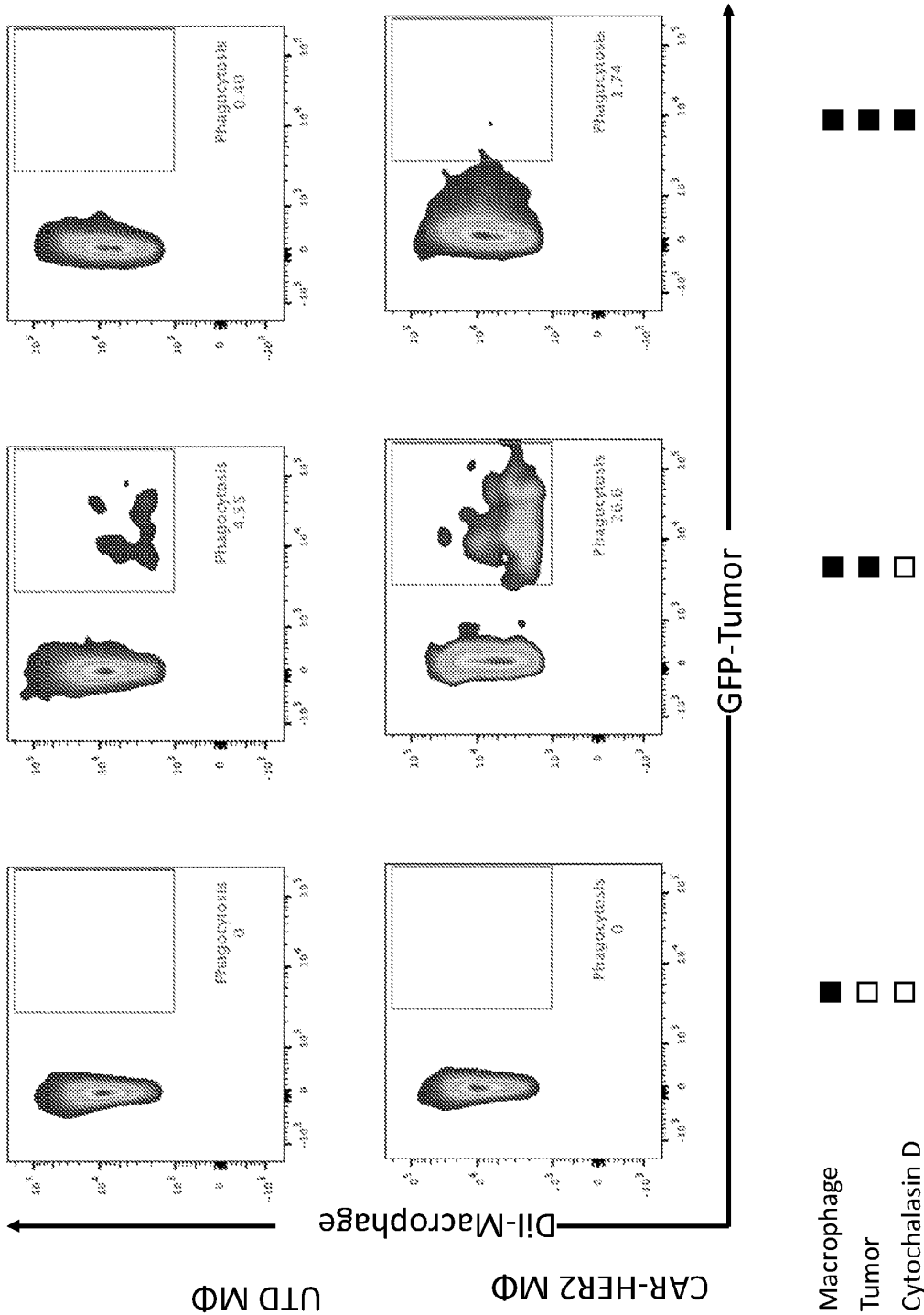
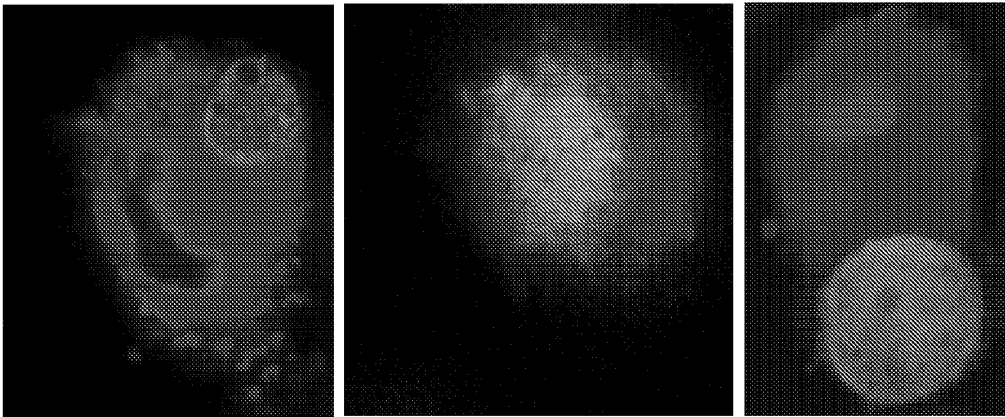
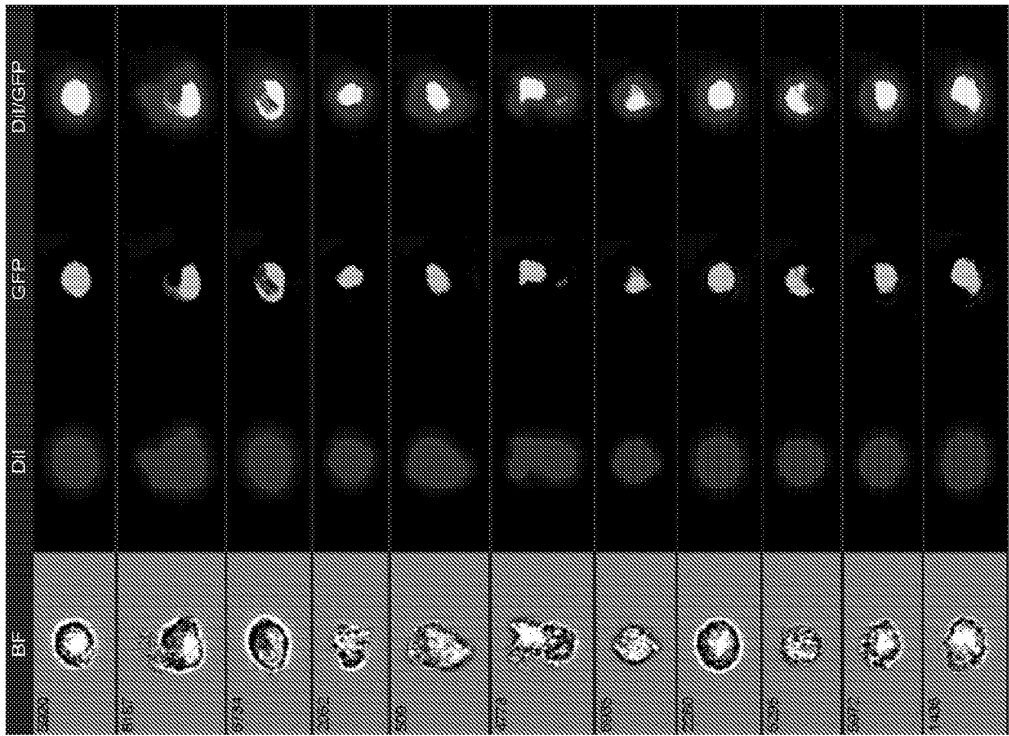


Figure 17A





C



B

Figures 17B- 17C

Figure 18

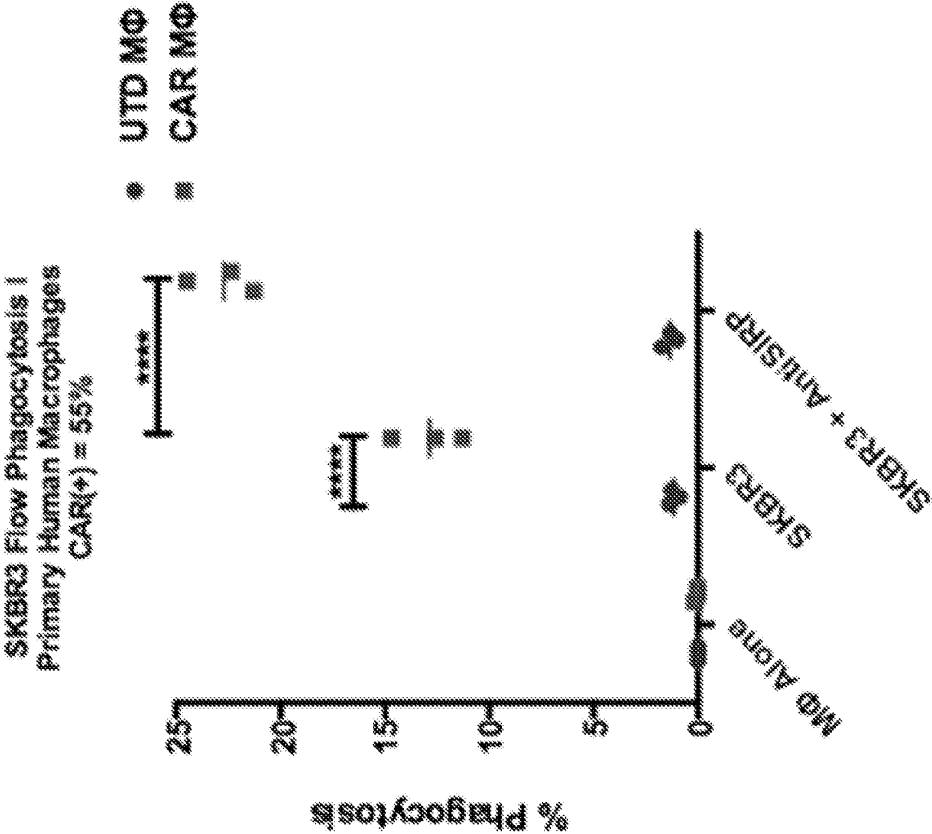
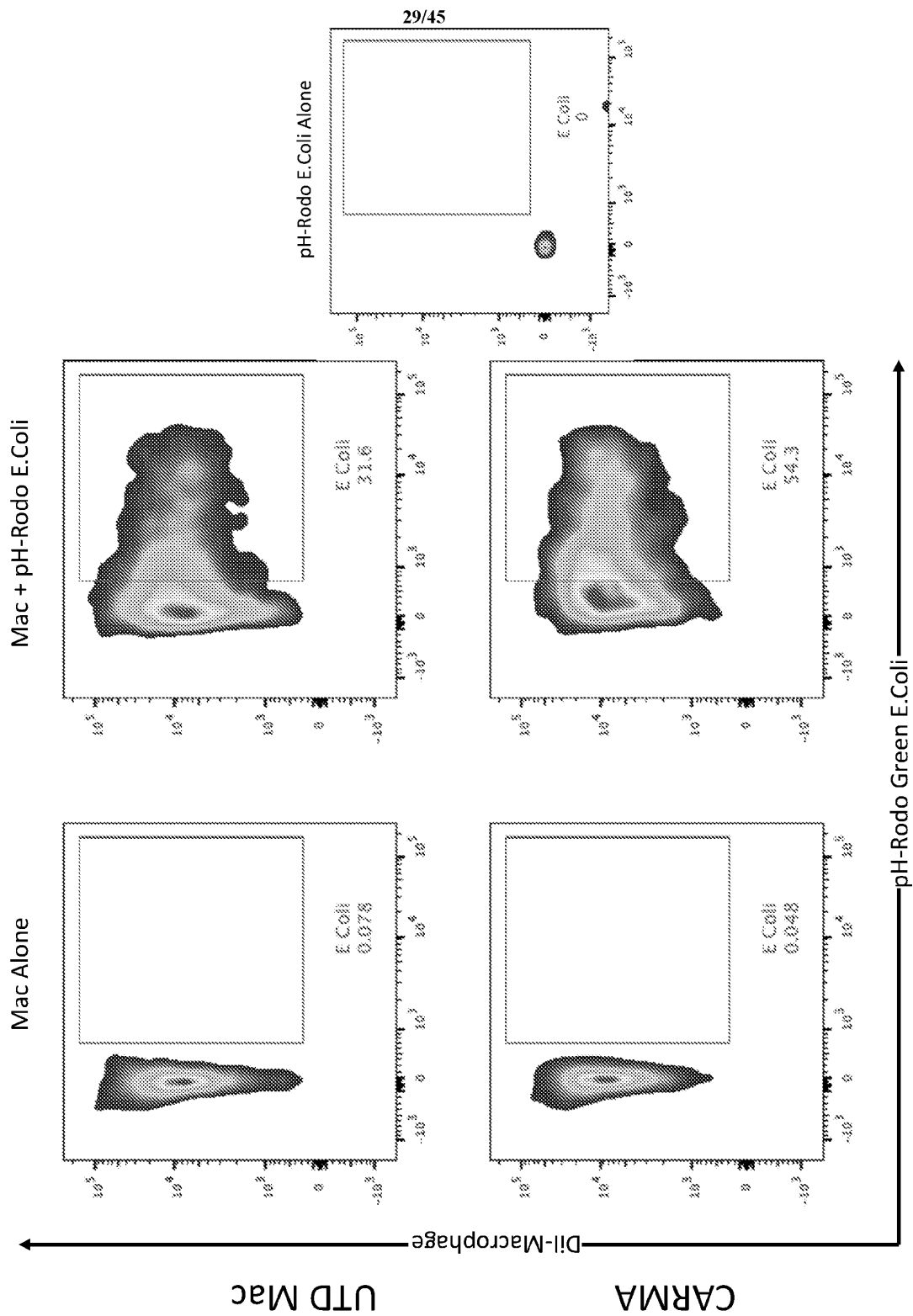
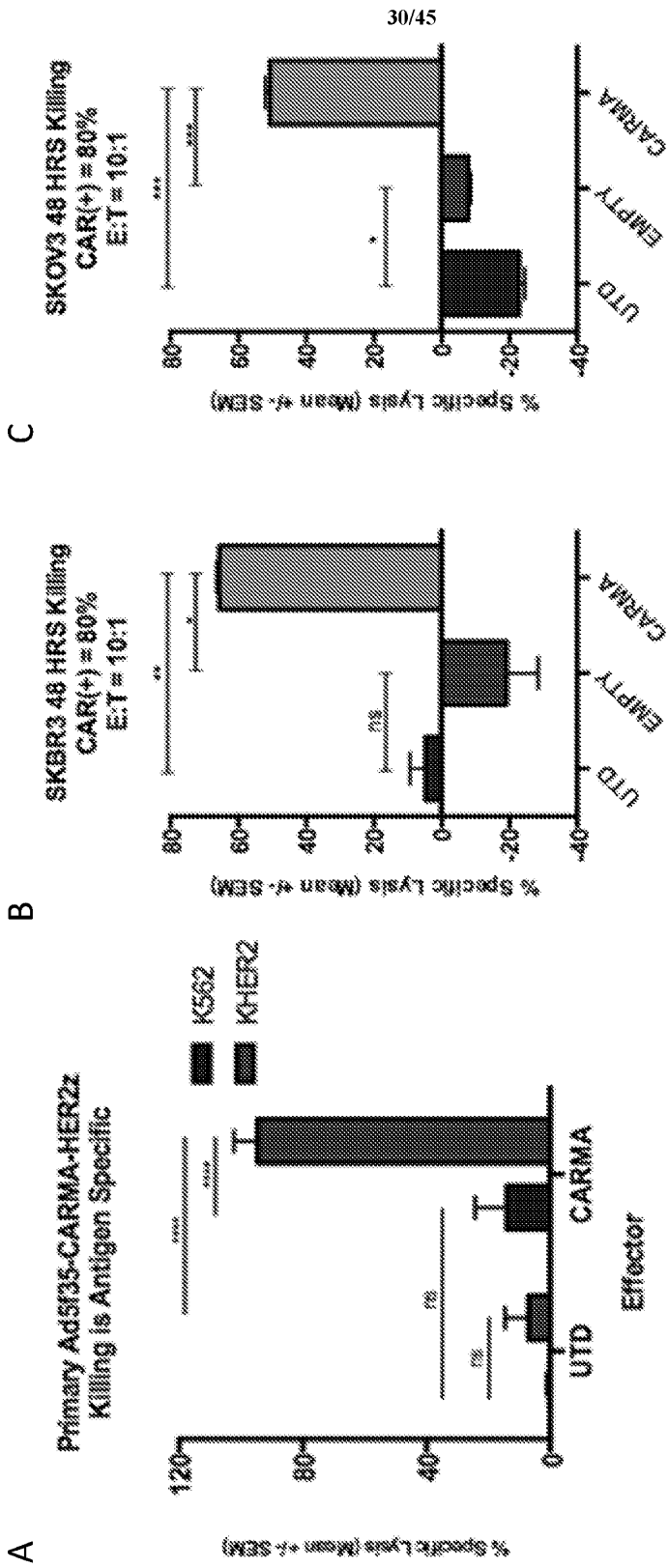


Figure 19



Figures 20A-20C



Figures 20D-20F

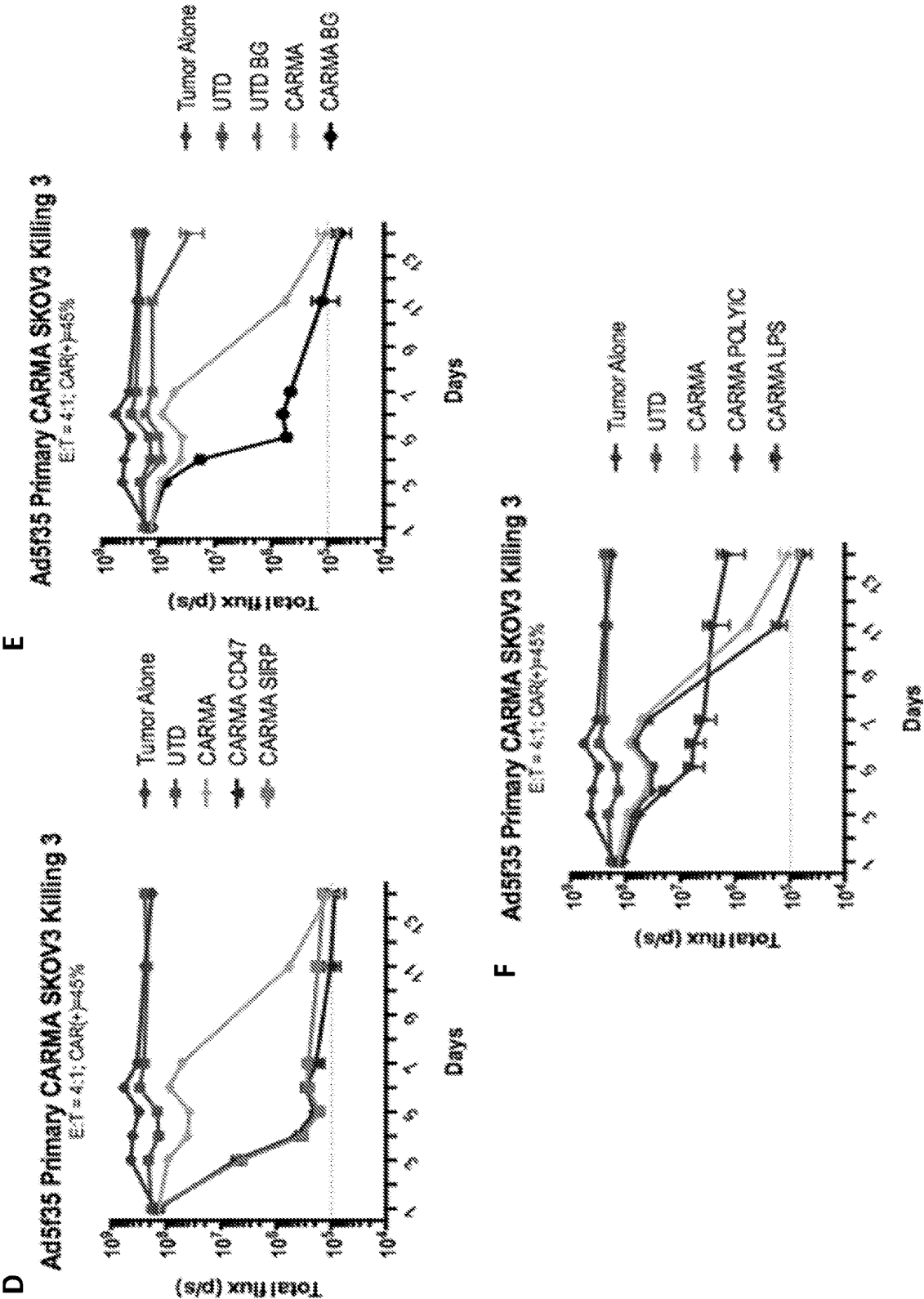
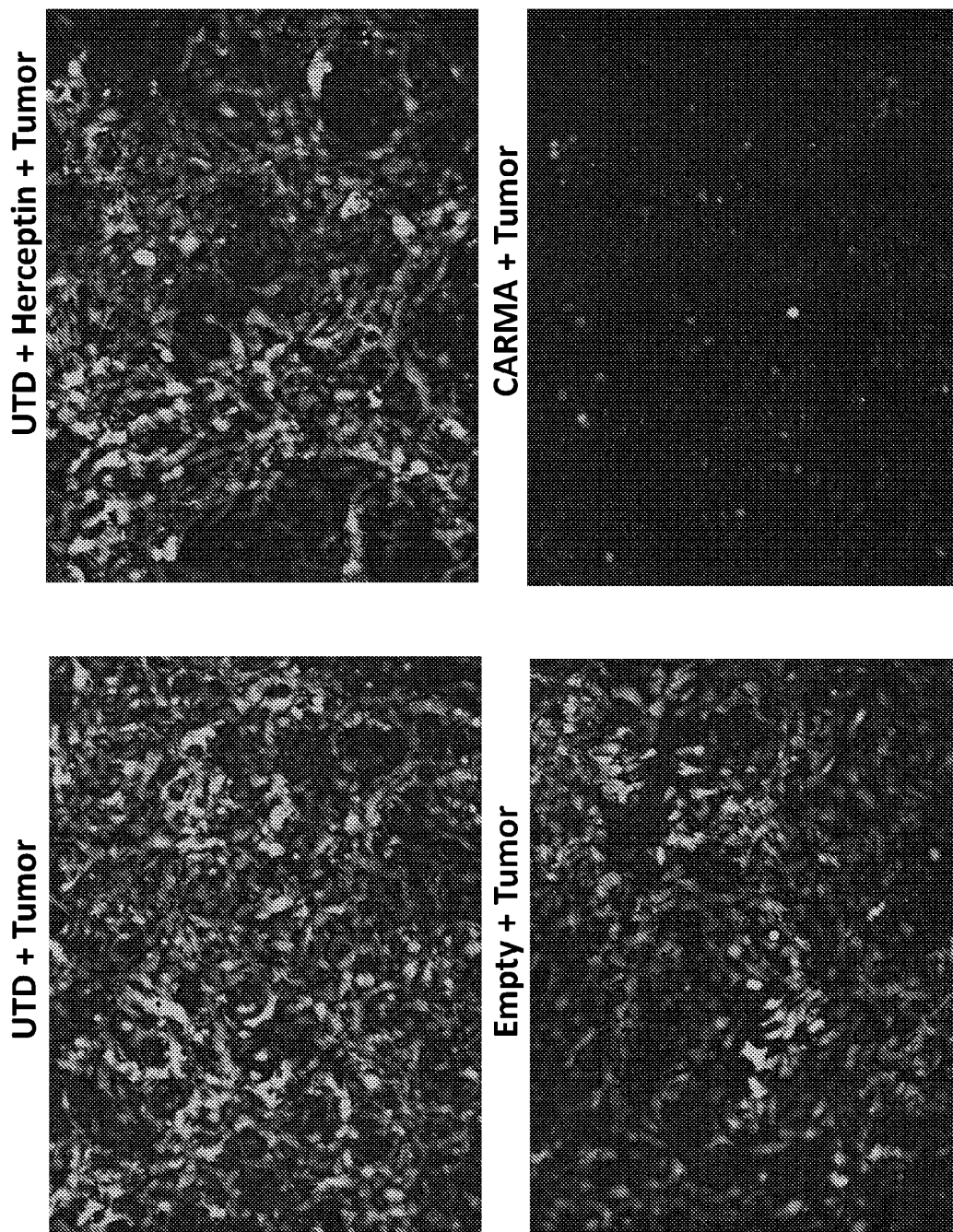
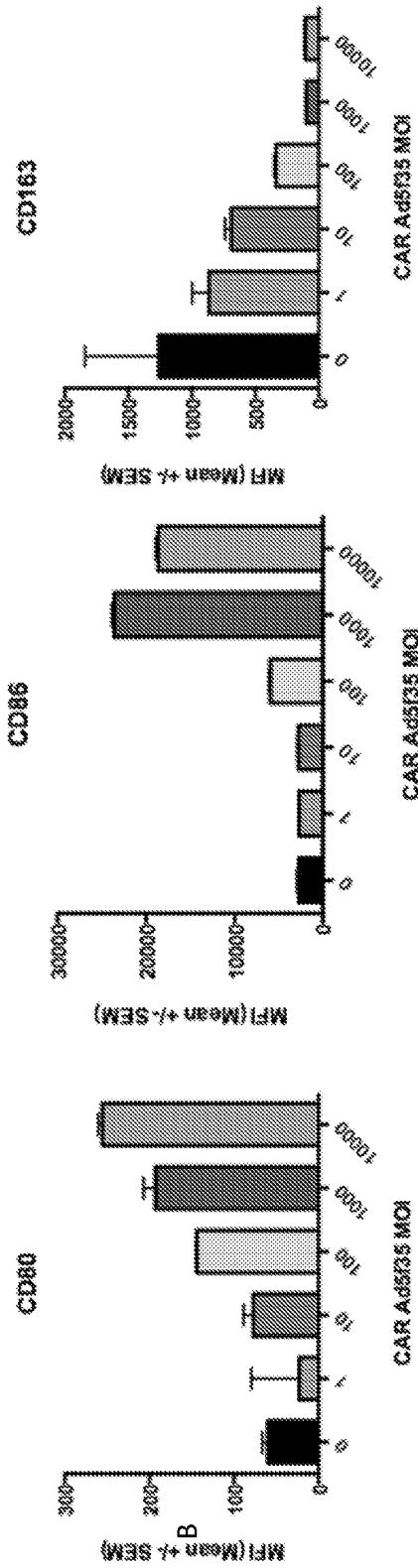


**Figure 21**

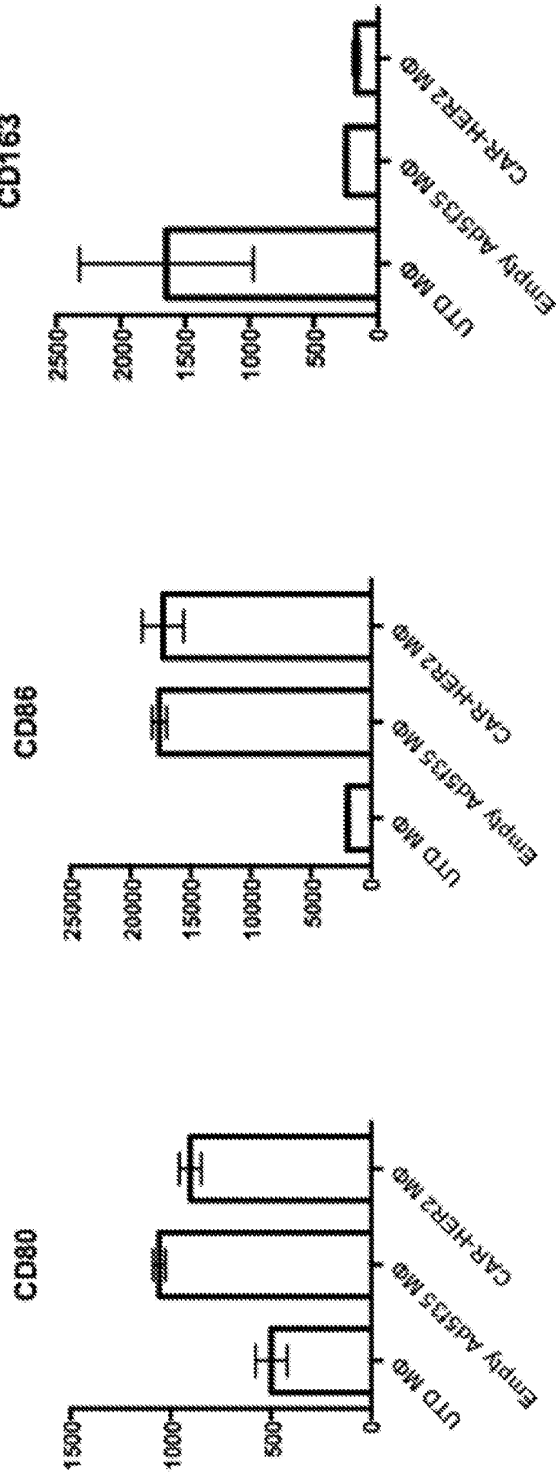


Figures 22A-22B

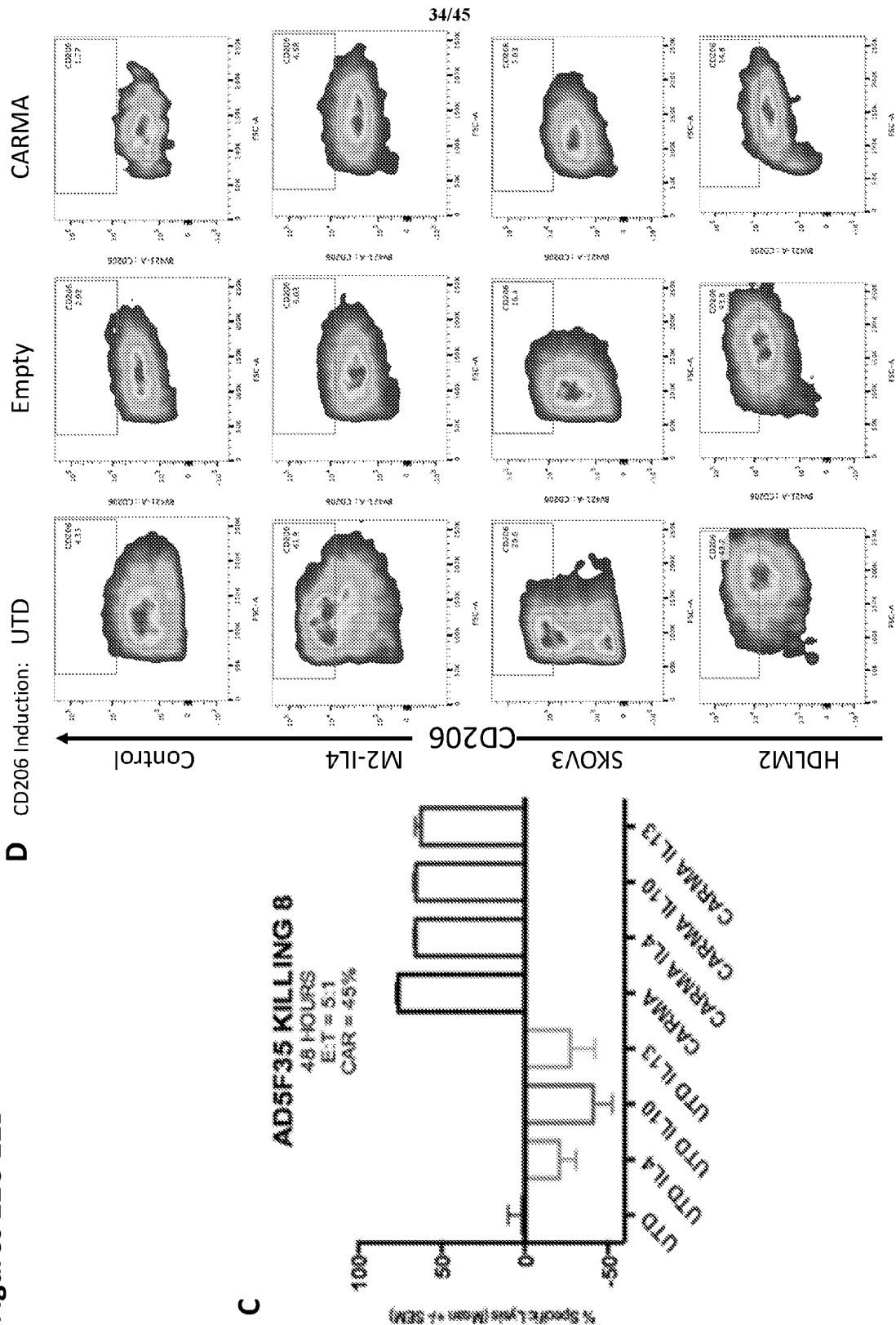
A



B



Figures 22C-22D



Figures 22E-22F

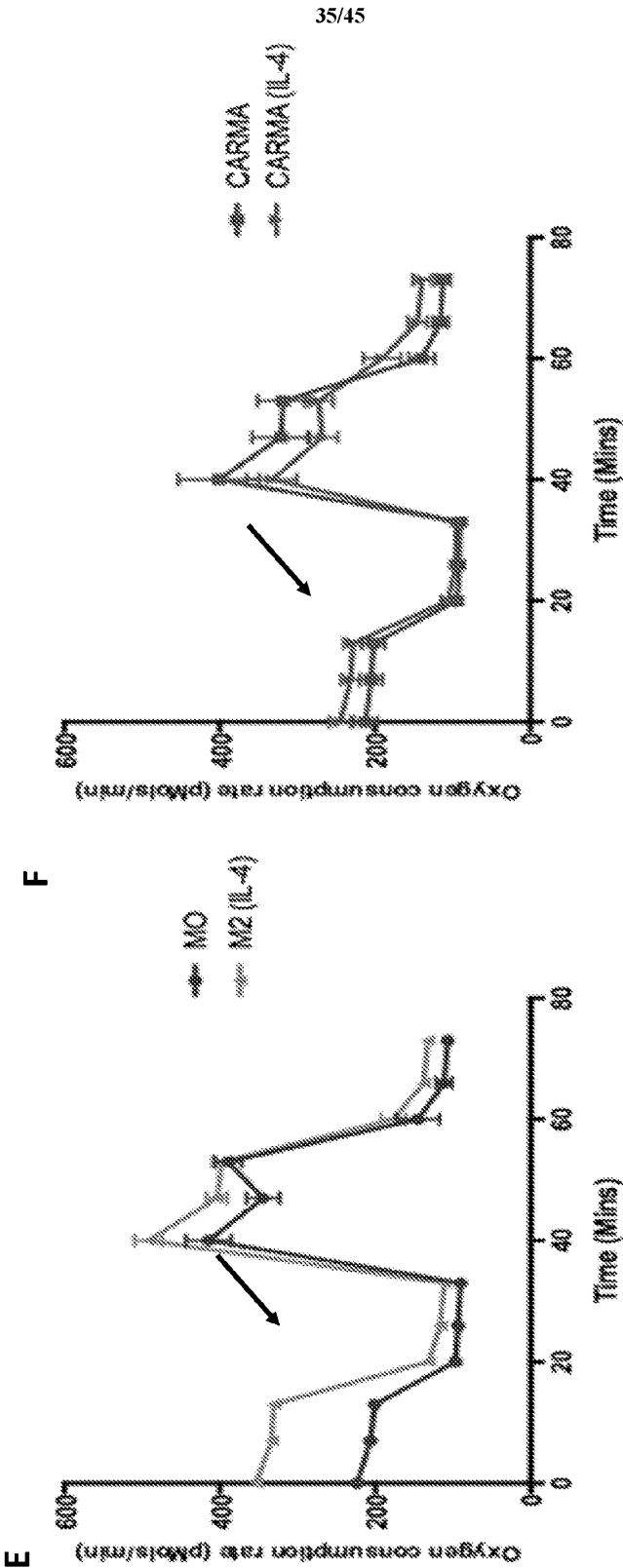
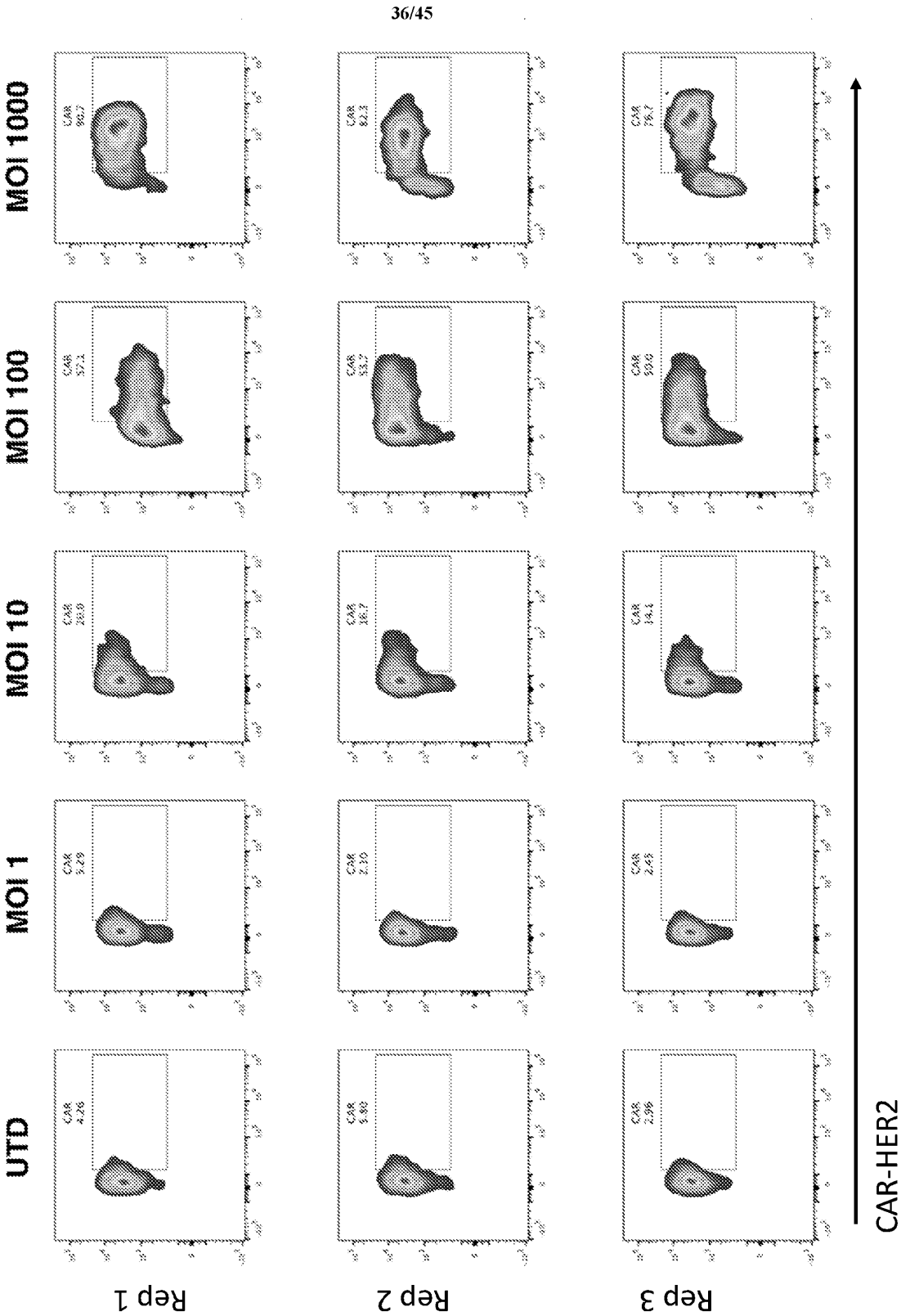
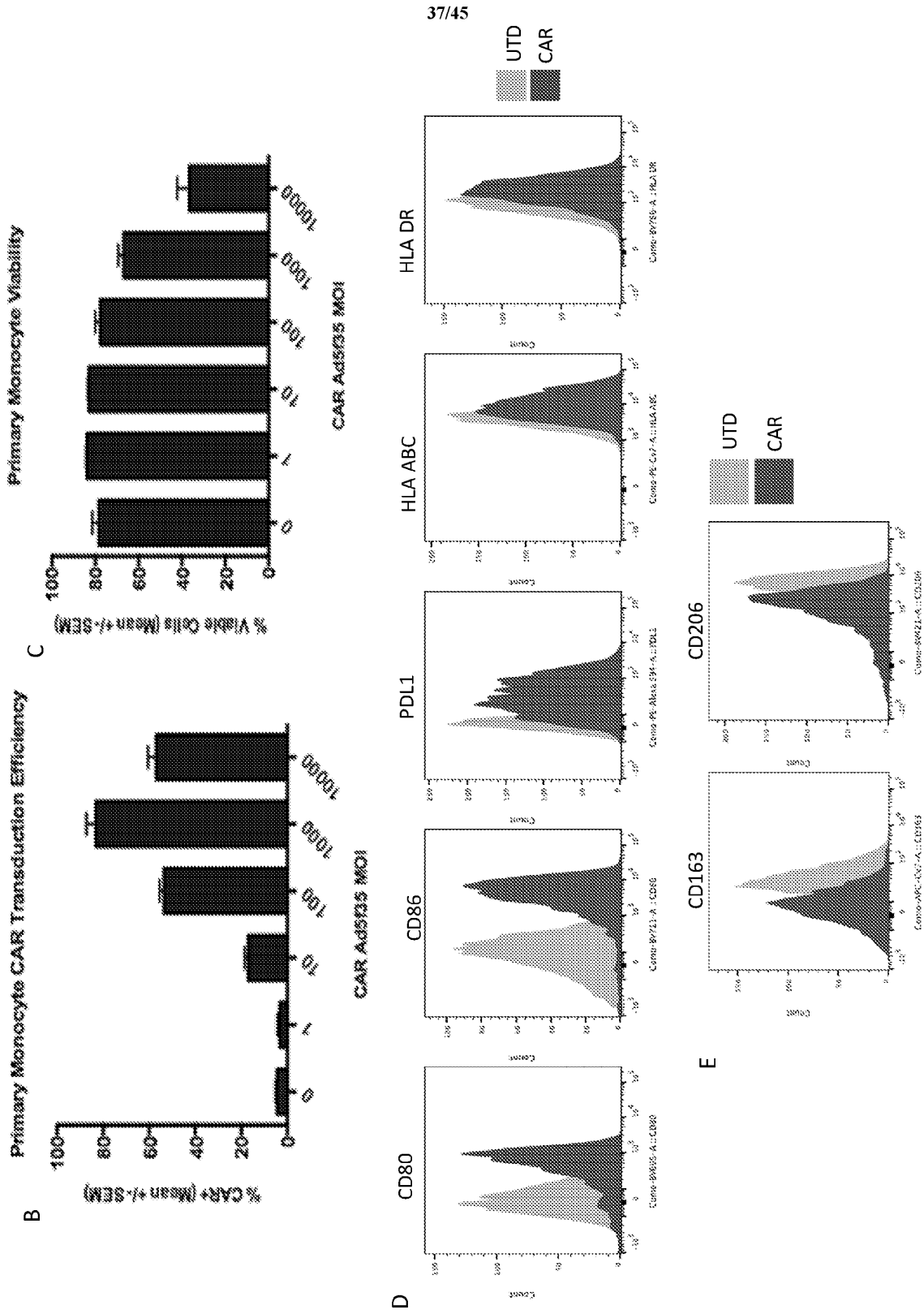


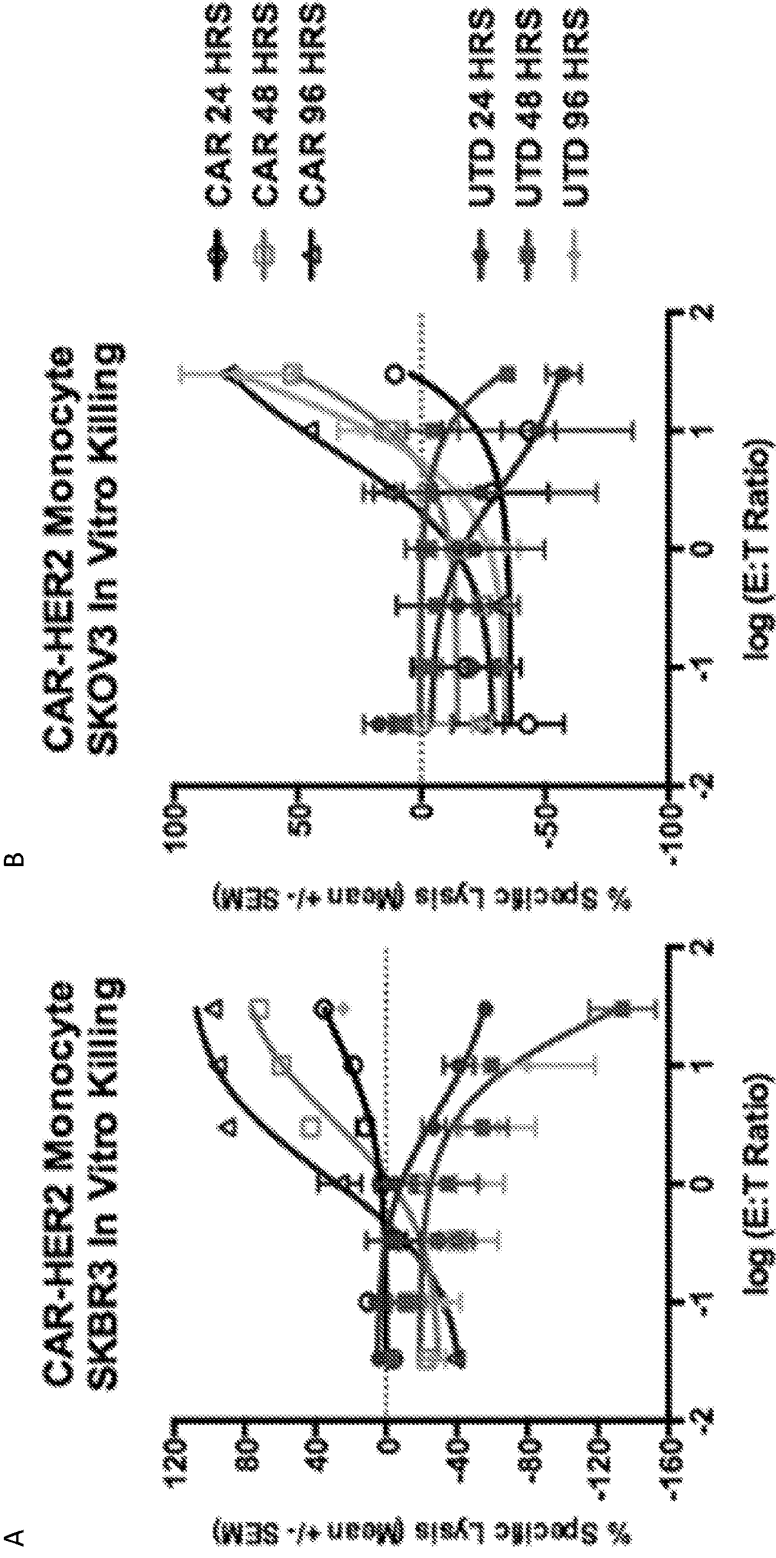
Figure 23A



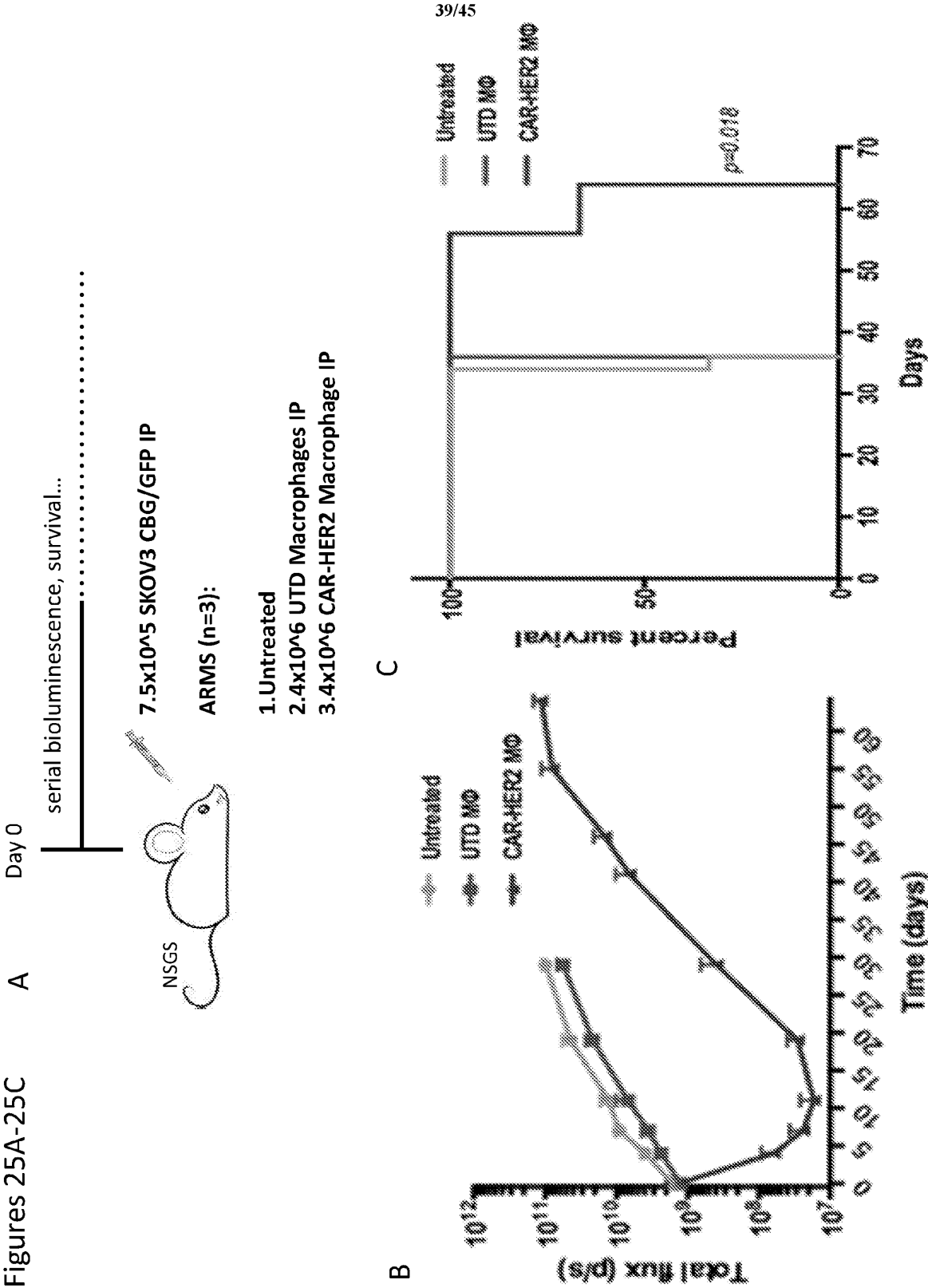
Figures 23B-23E



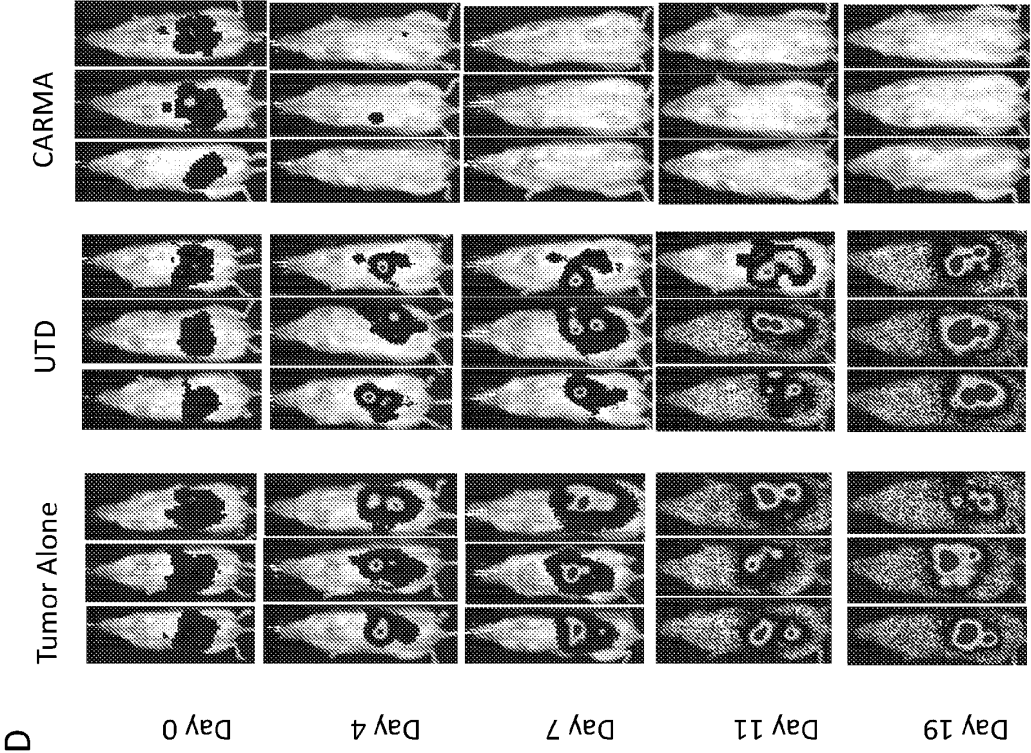
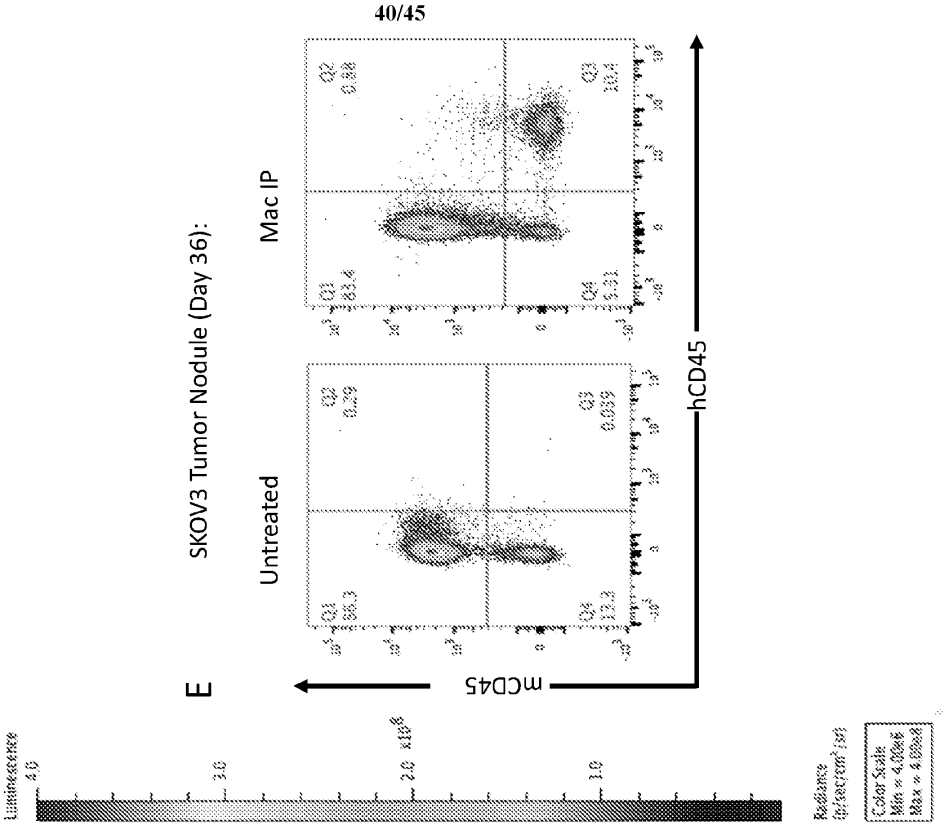
Figures 24A-24B

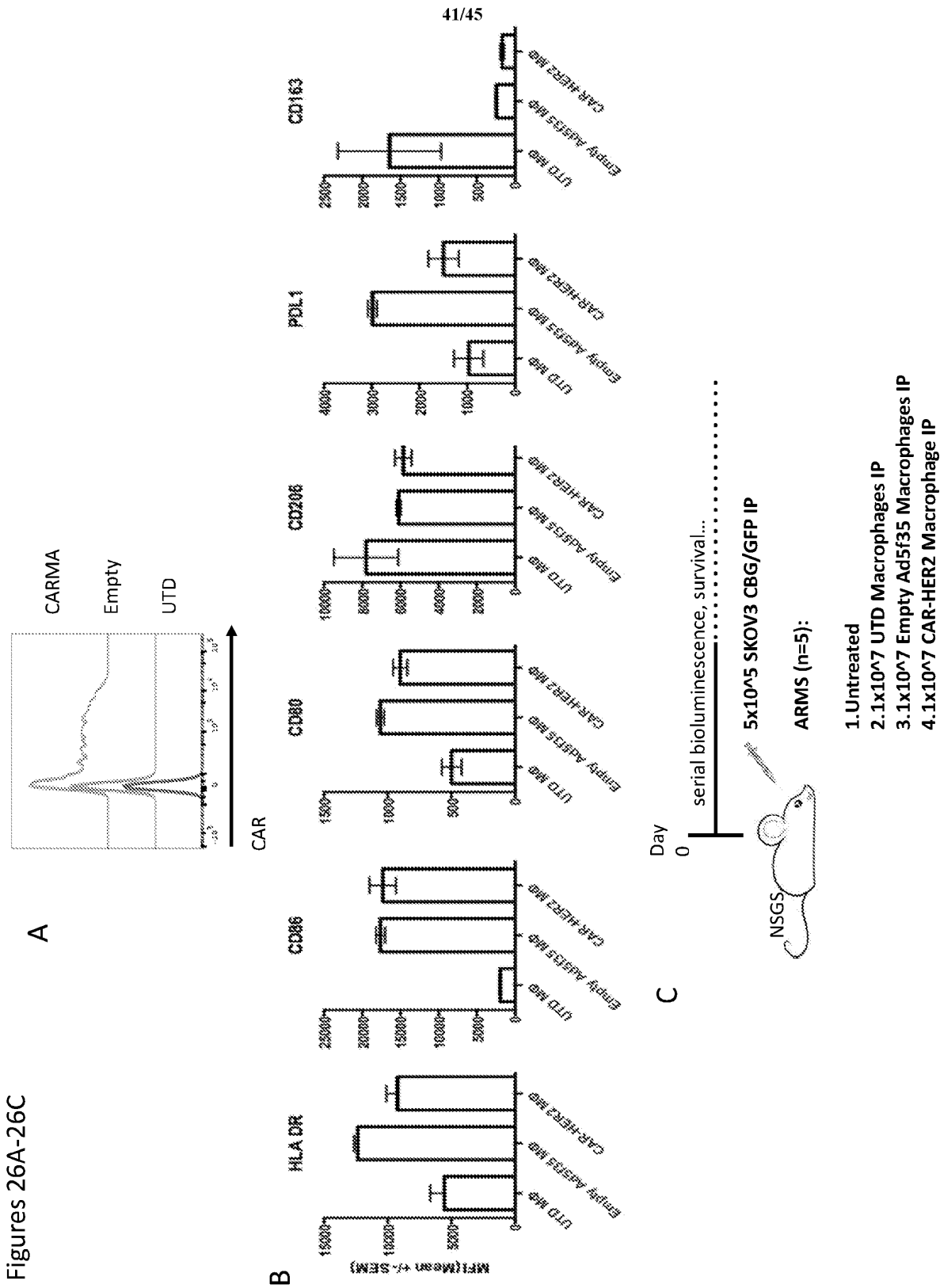


Figures 25A-25C



Figures 25D-25E





Figures 26A-26C

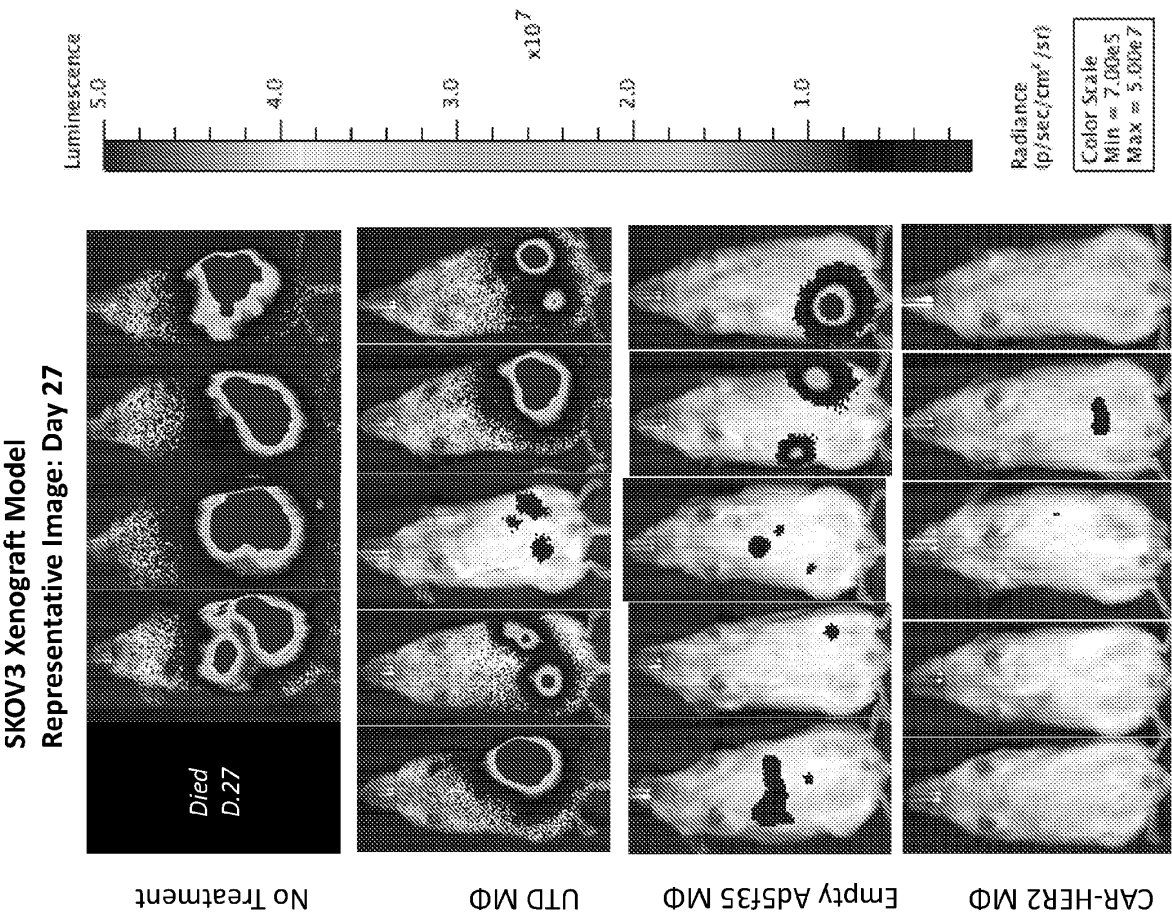


**Figure 26D**

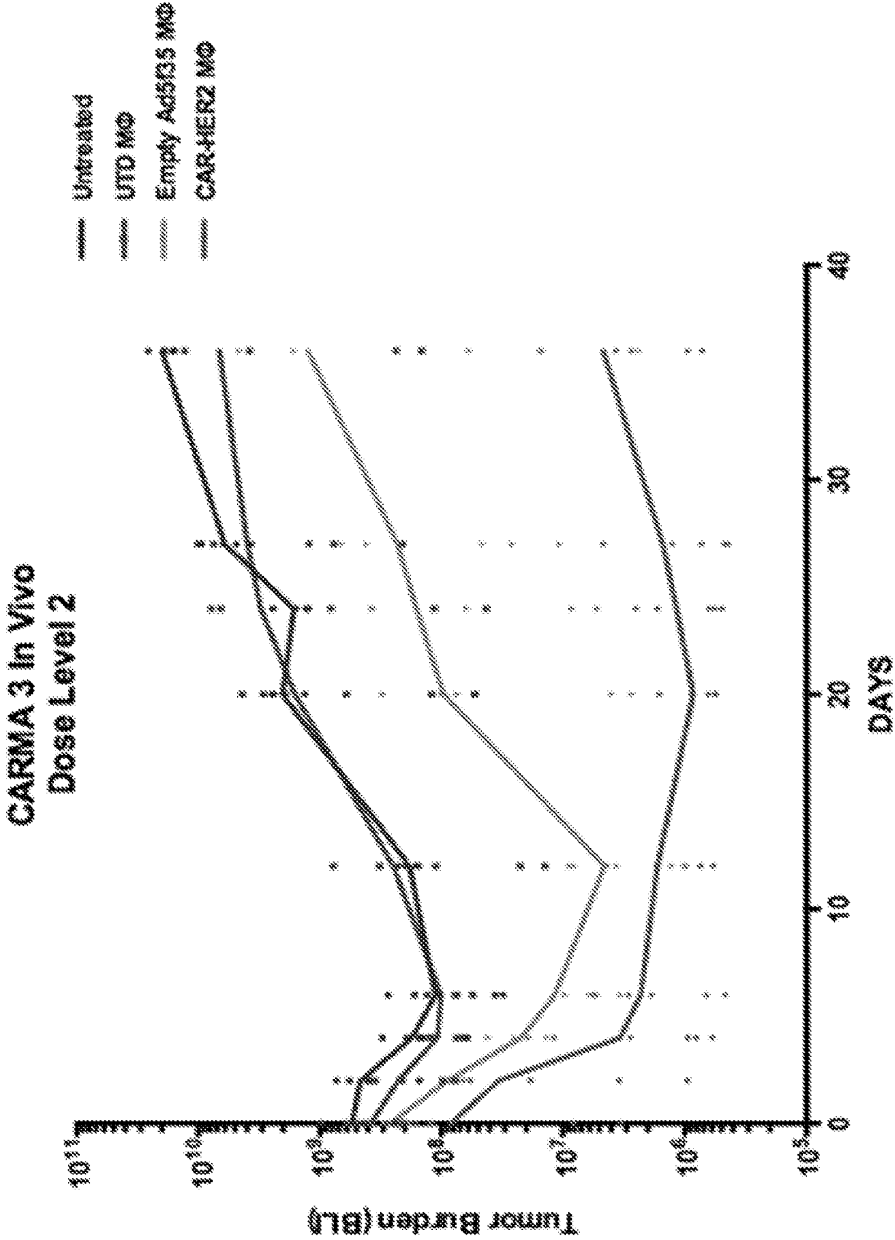
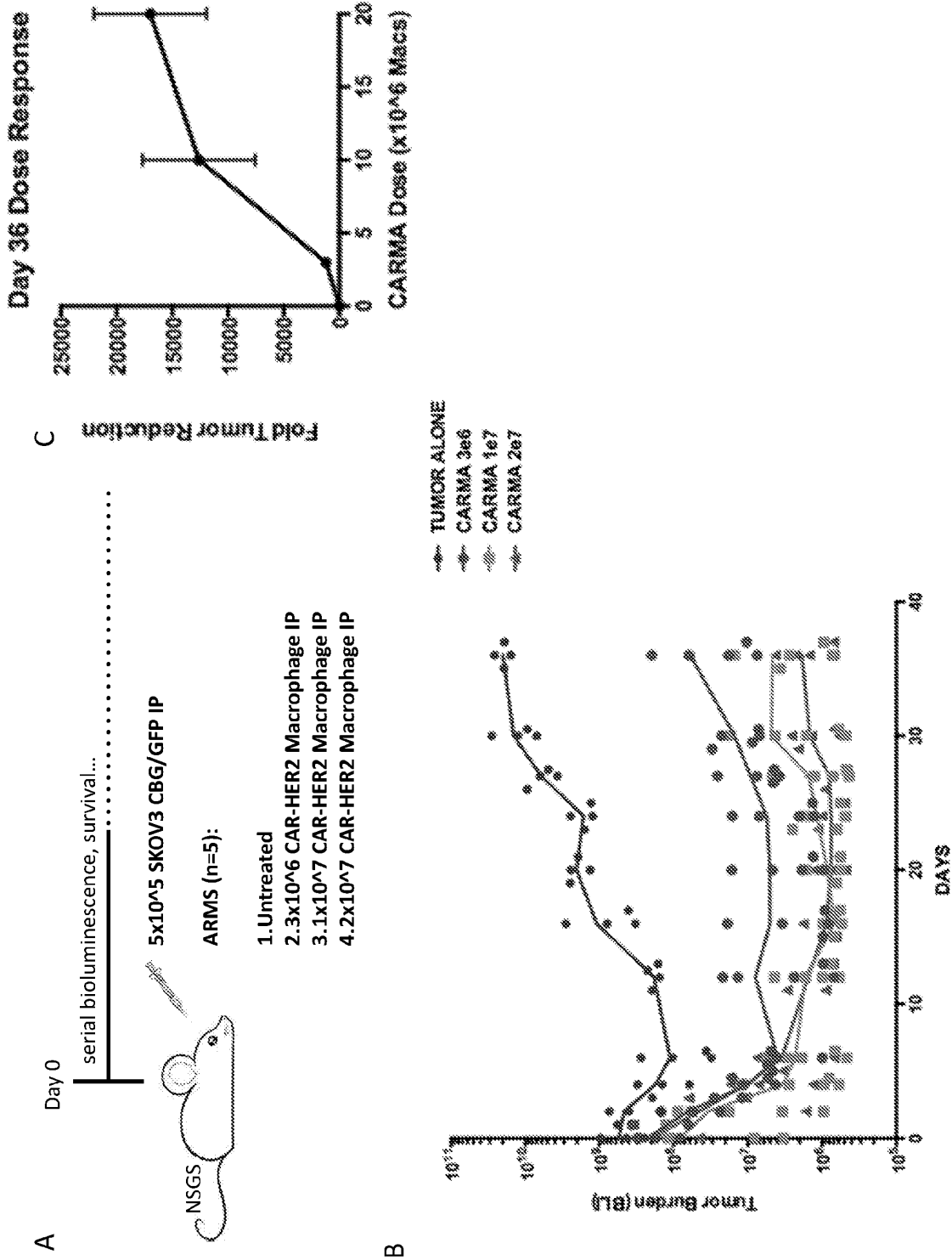


Figure 26E

Figures 27A-27C



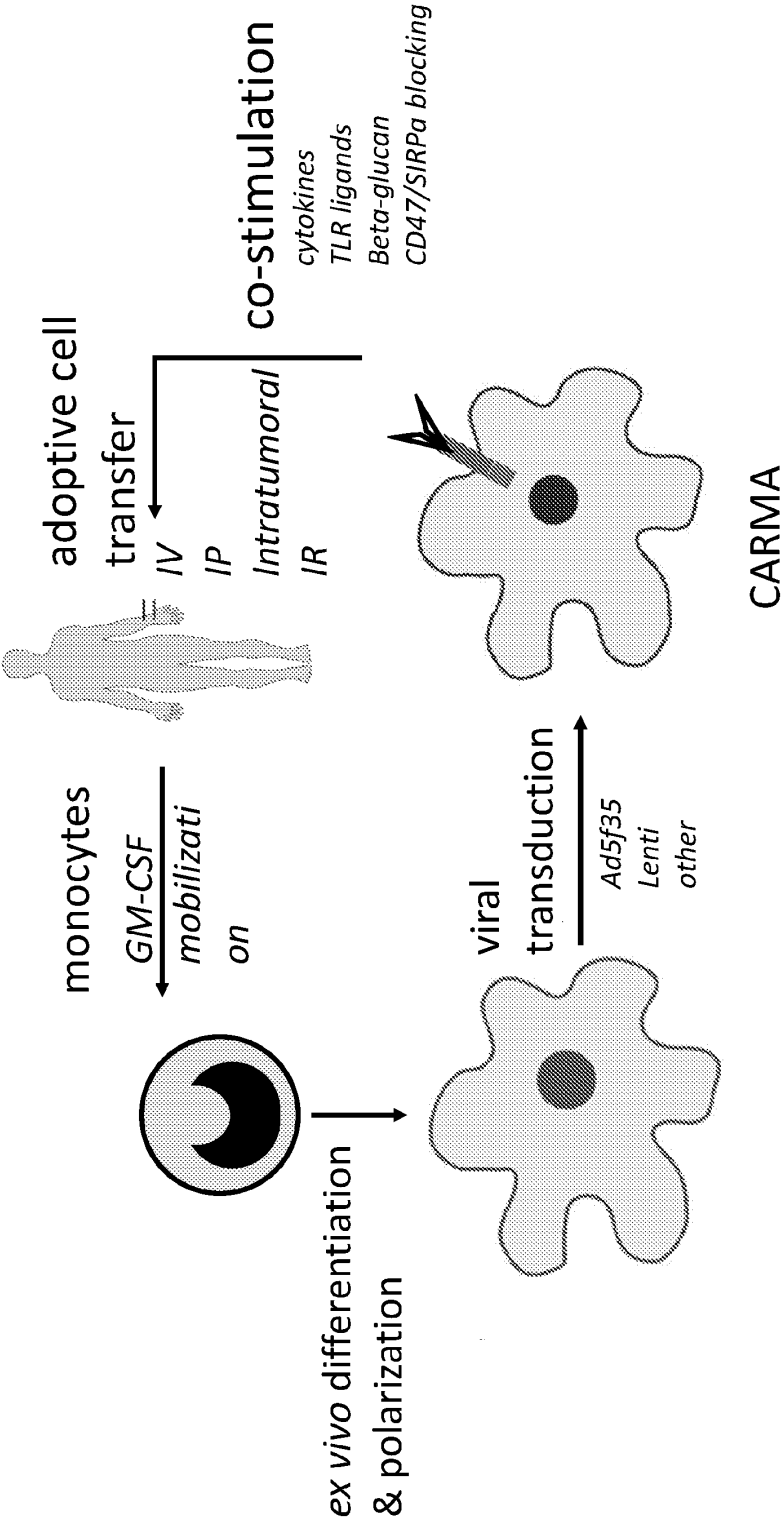


Figure 28