

Figure 1A

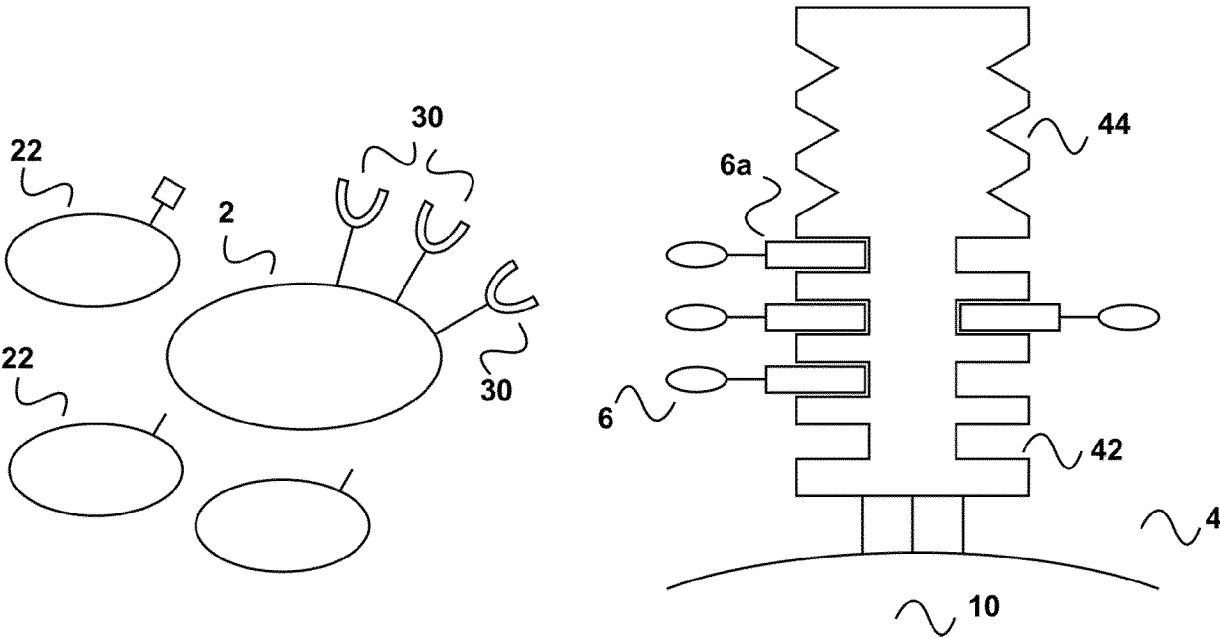


Figure 1B

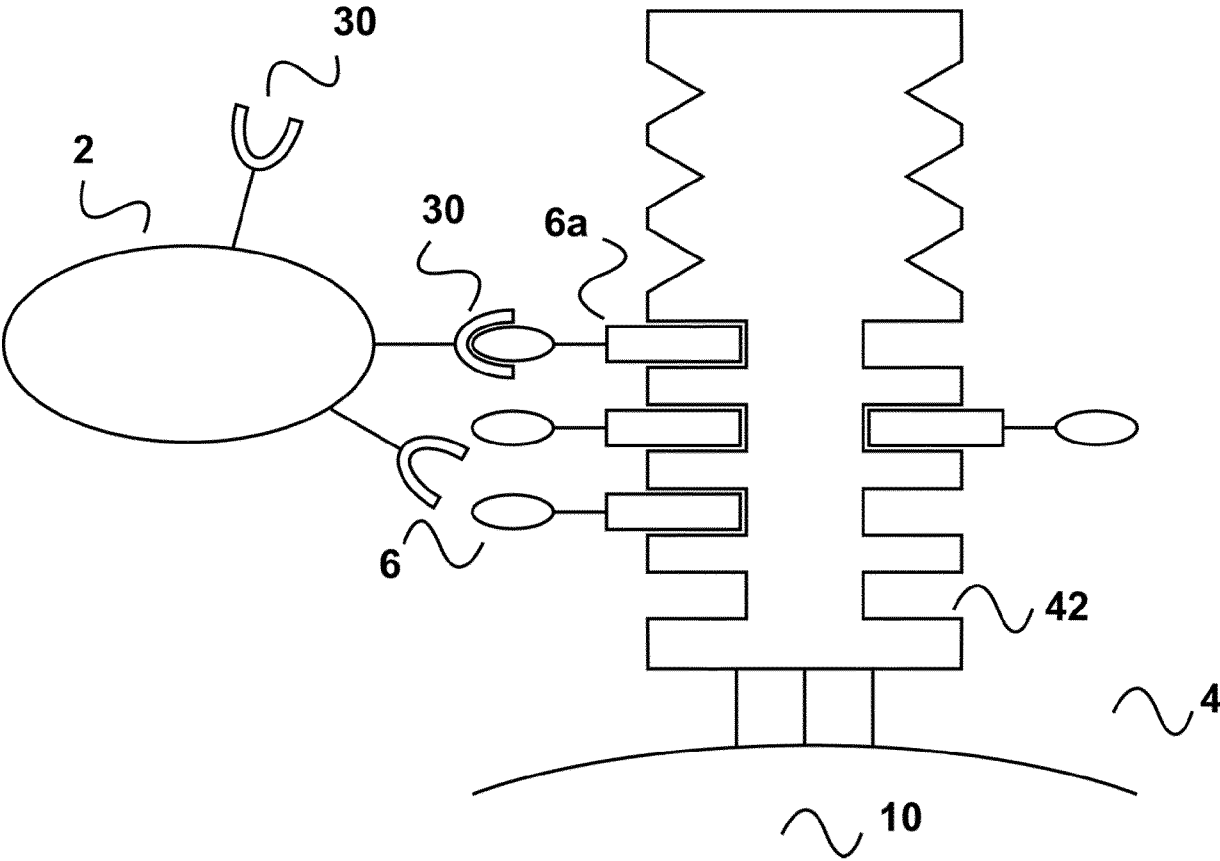


Figure 1C

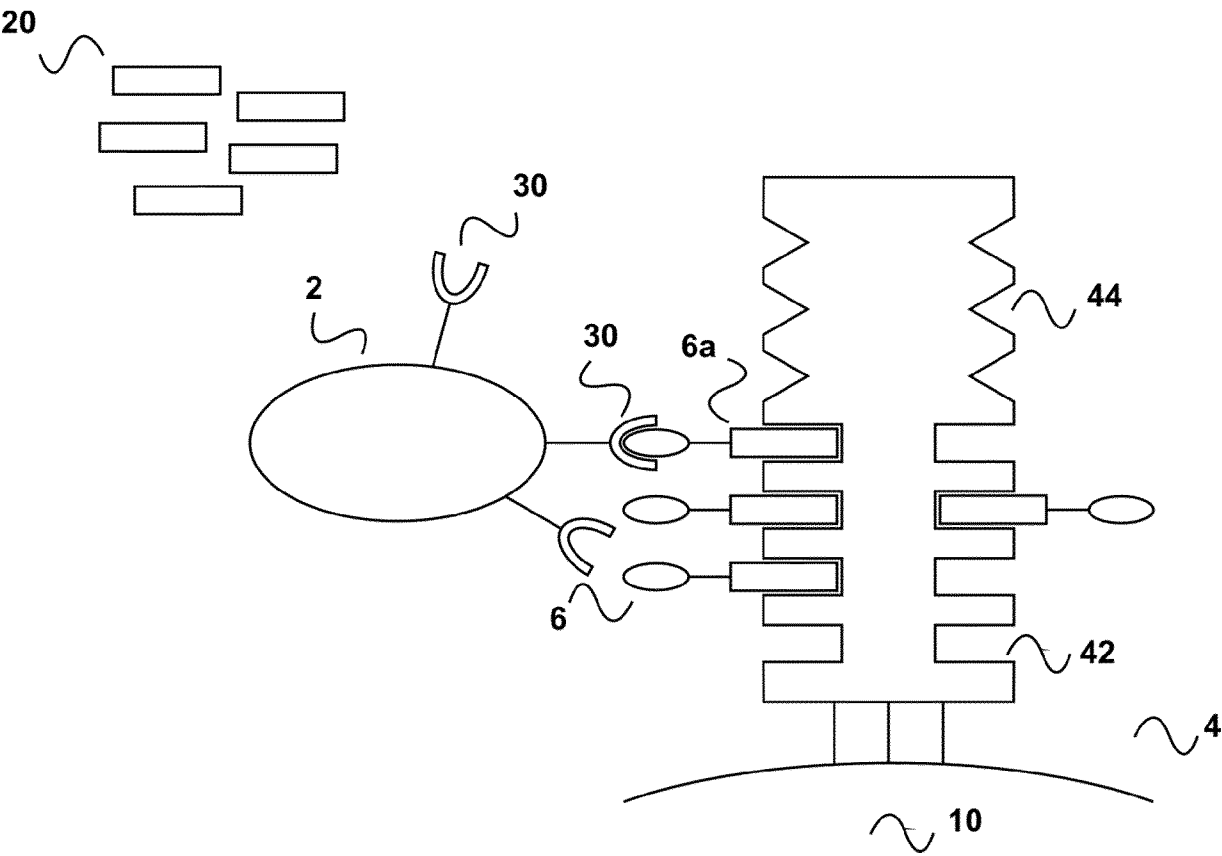


Figure 1D

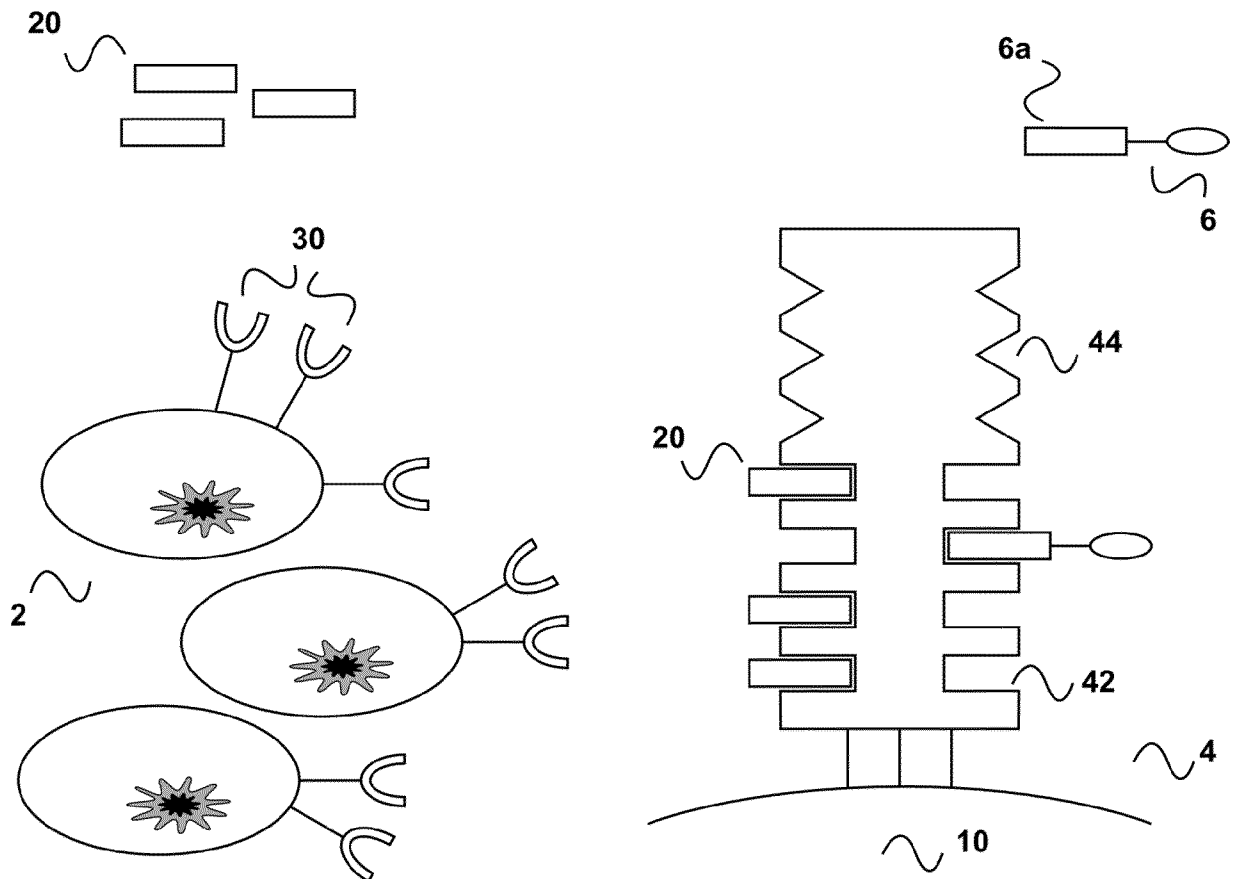


Figure 2A

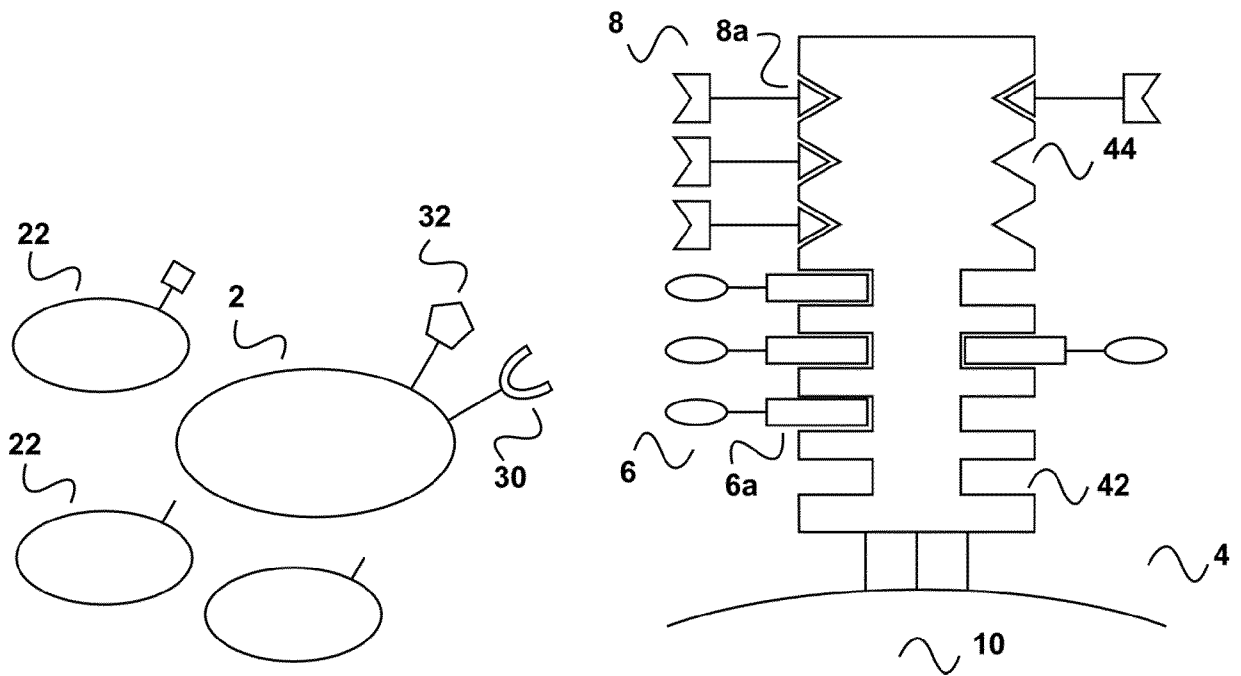


Figure 2B

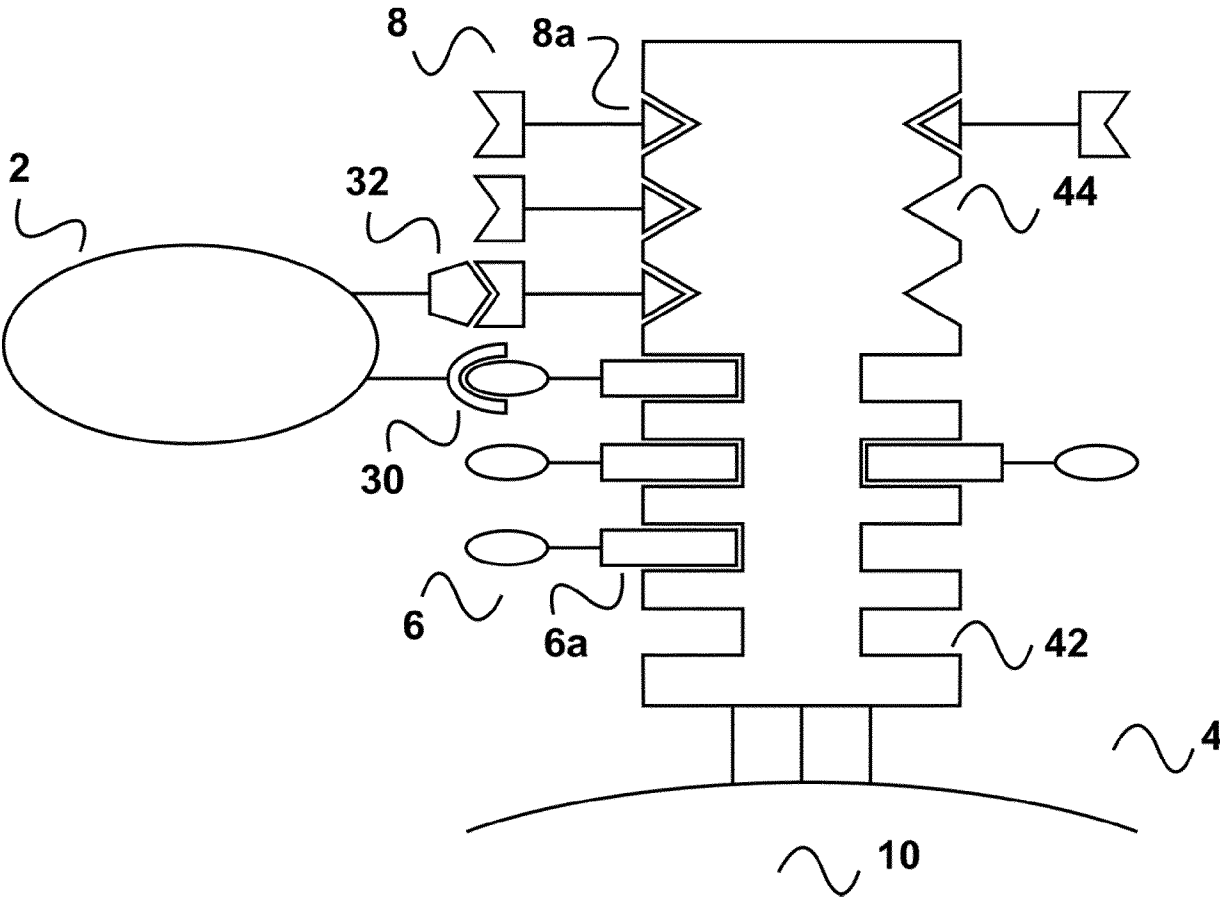


Figure 2C

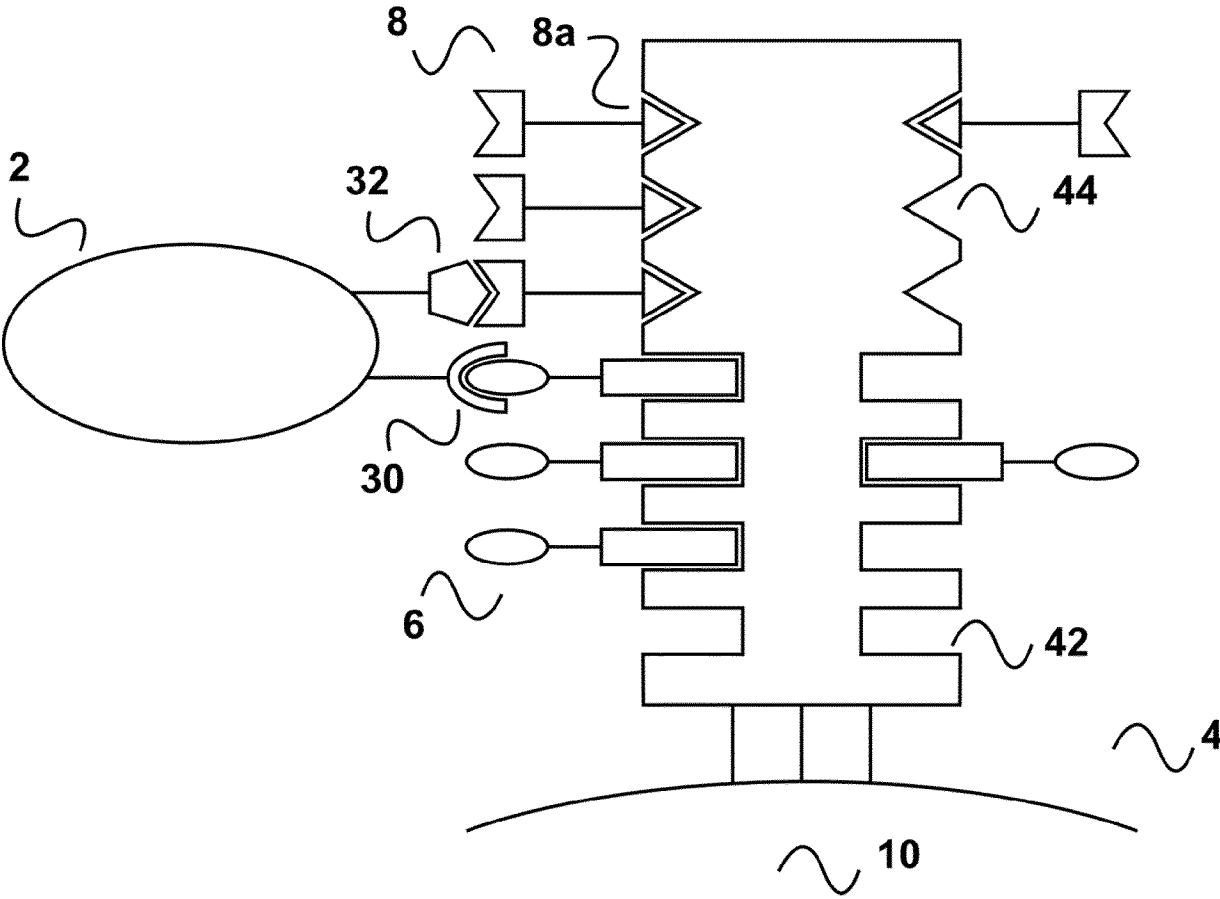


Figure 2D

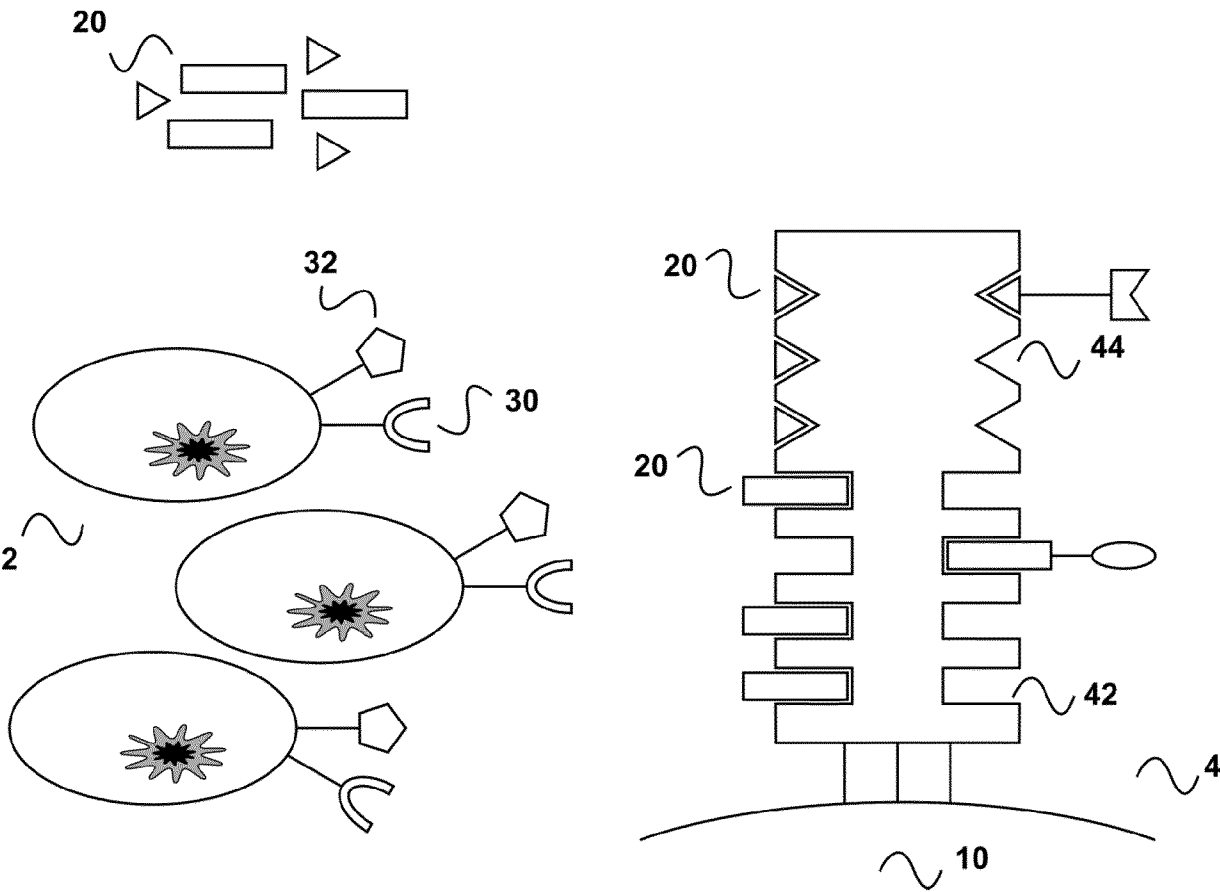


Figure 3A

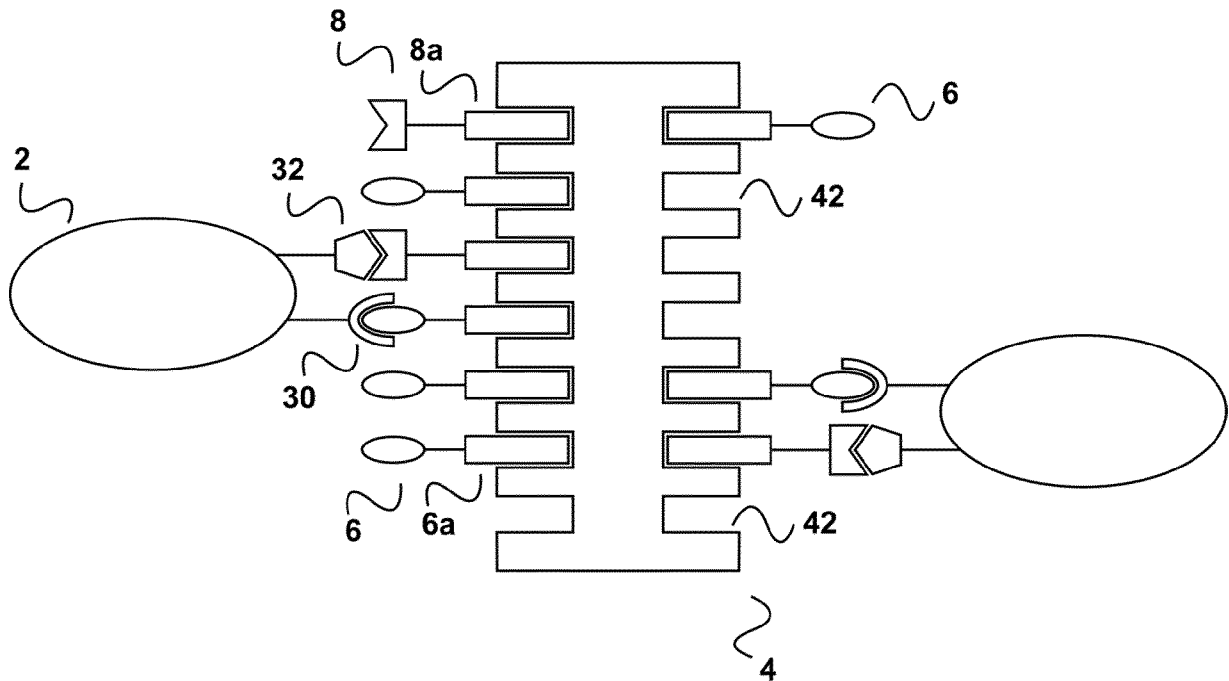


Figure 3B

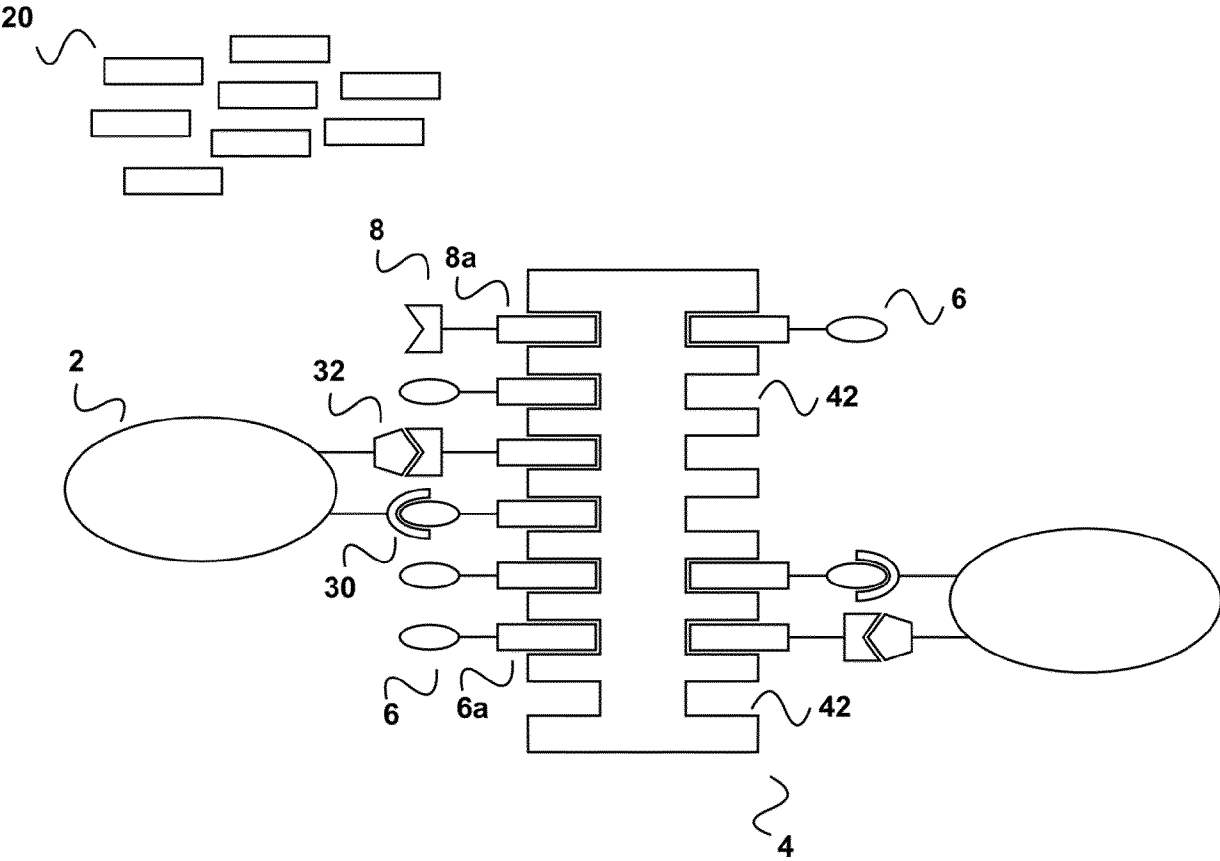


Figure 3C

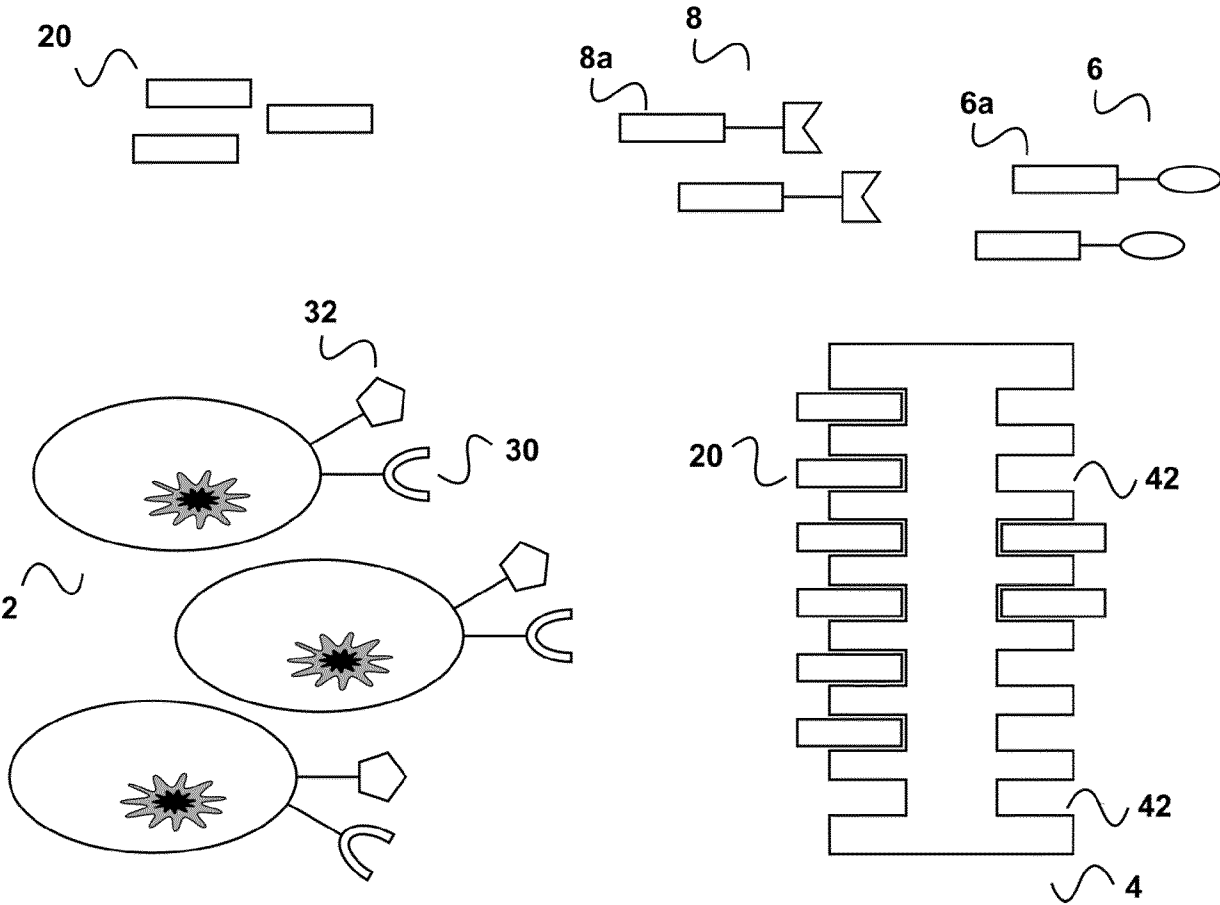


Figure 4A

(A)

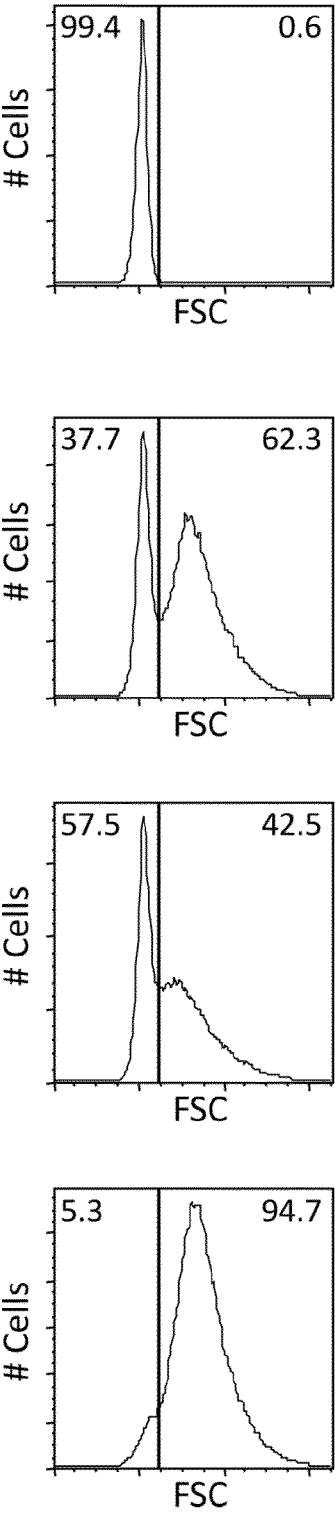


Figure 4B

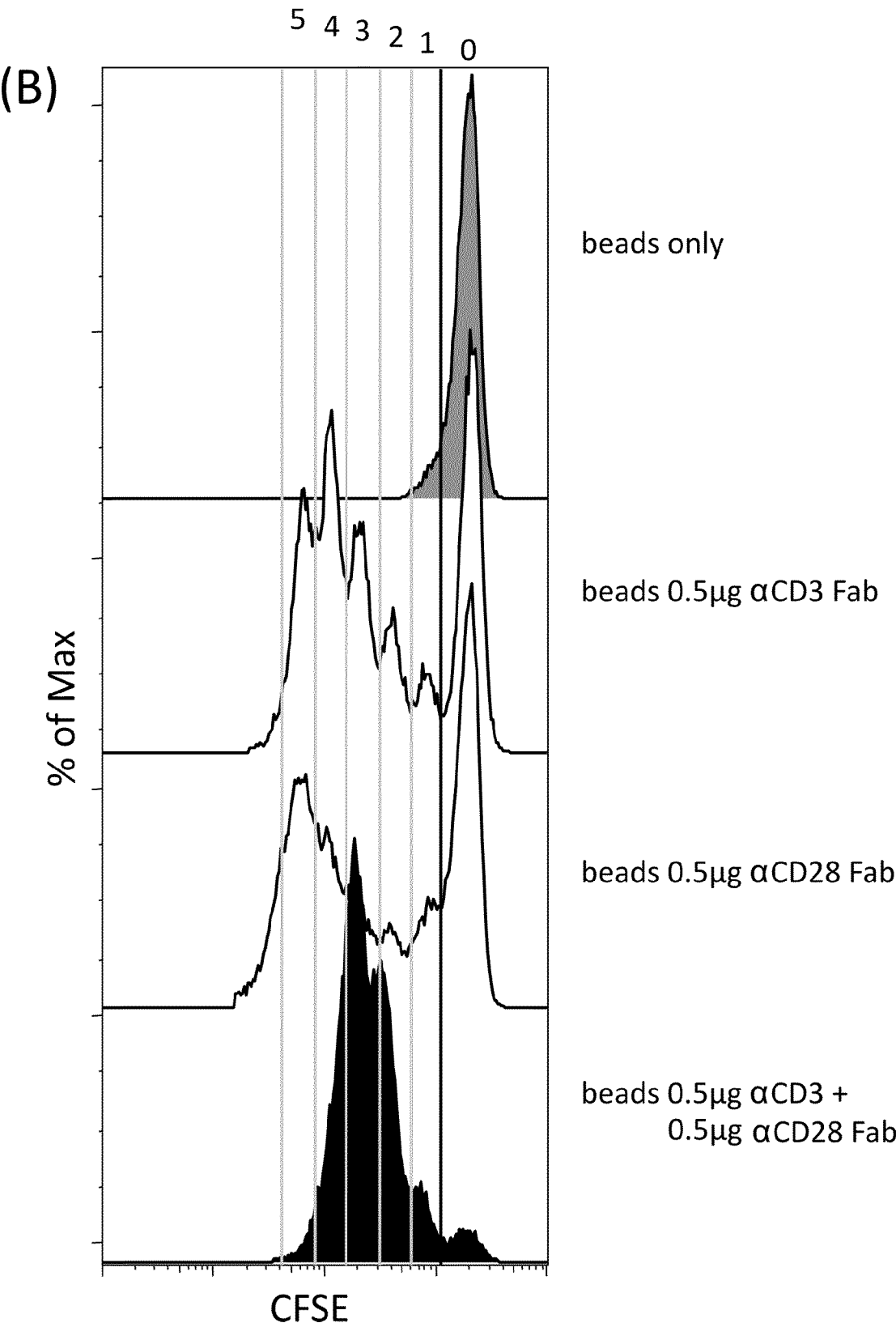


Figure 4C

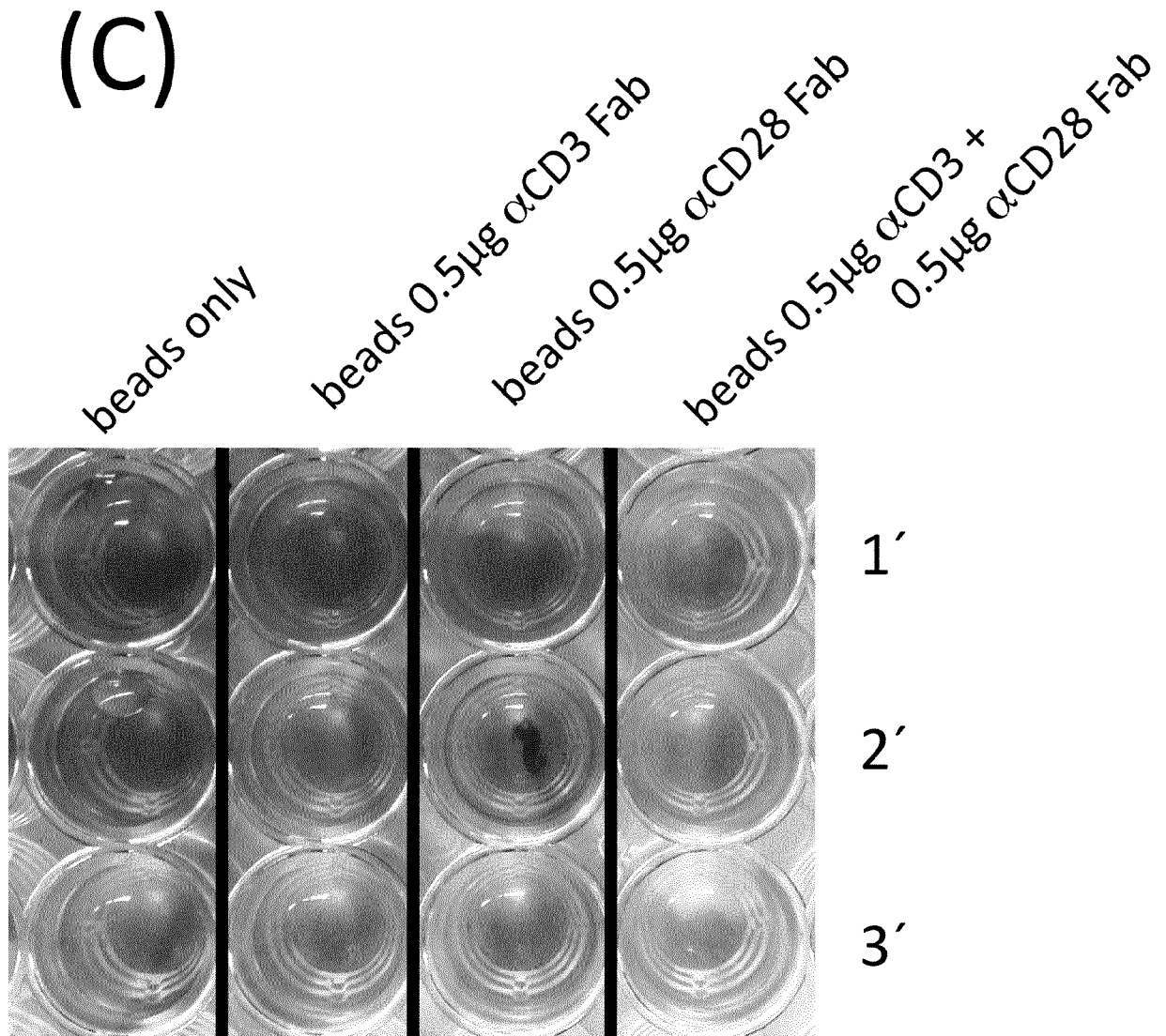
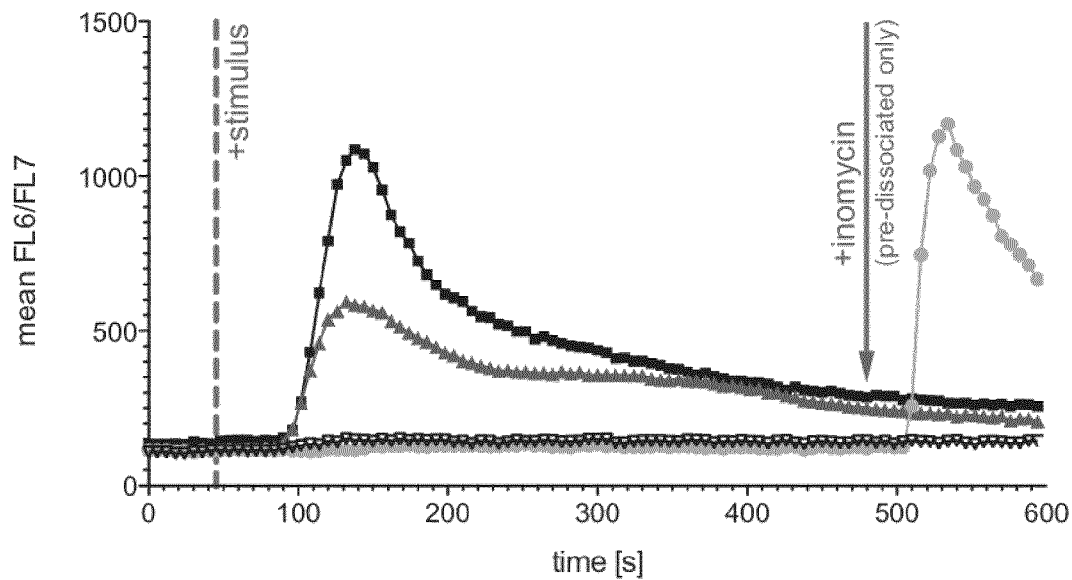


Figure 5A

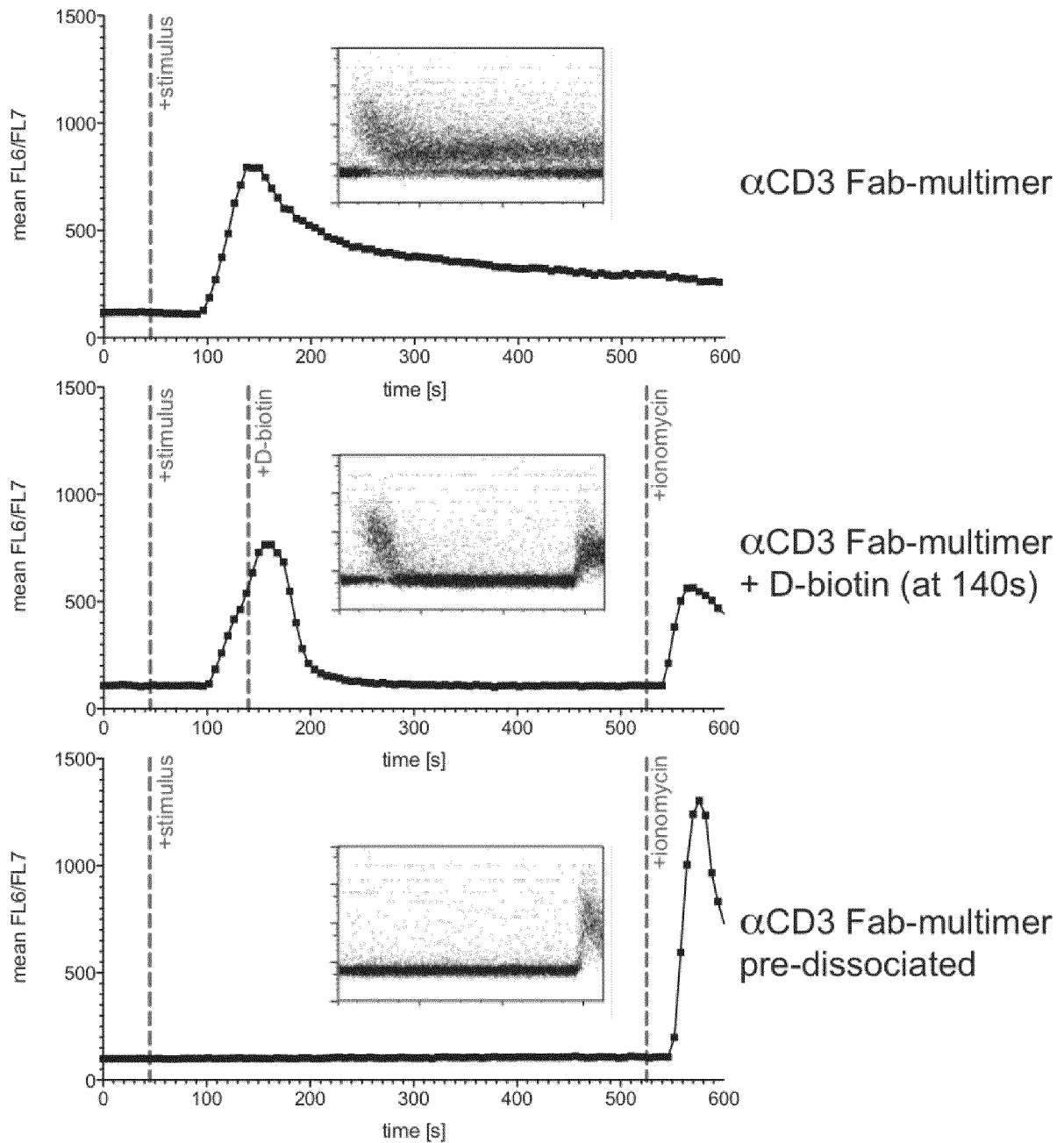
(A)



- +mAb (OKT3)
- ▲— +αCD3 Fab-multimer
- +Fab-multimer pre-dissociated
- ▽— +PBS

Figure 5B

(B)



17 / 39

Figure 6

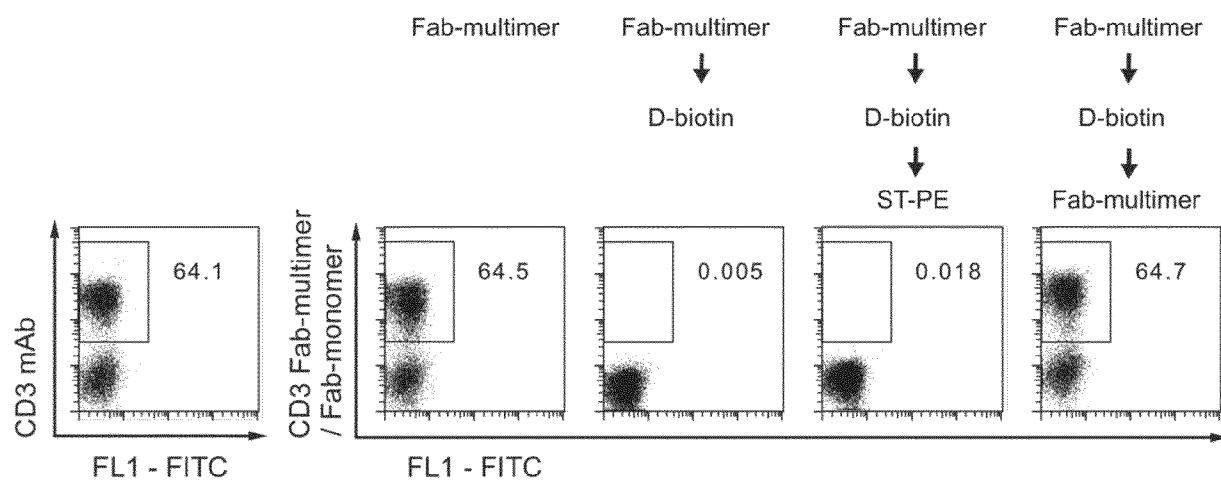


Figure 7

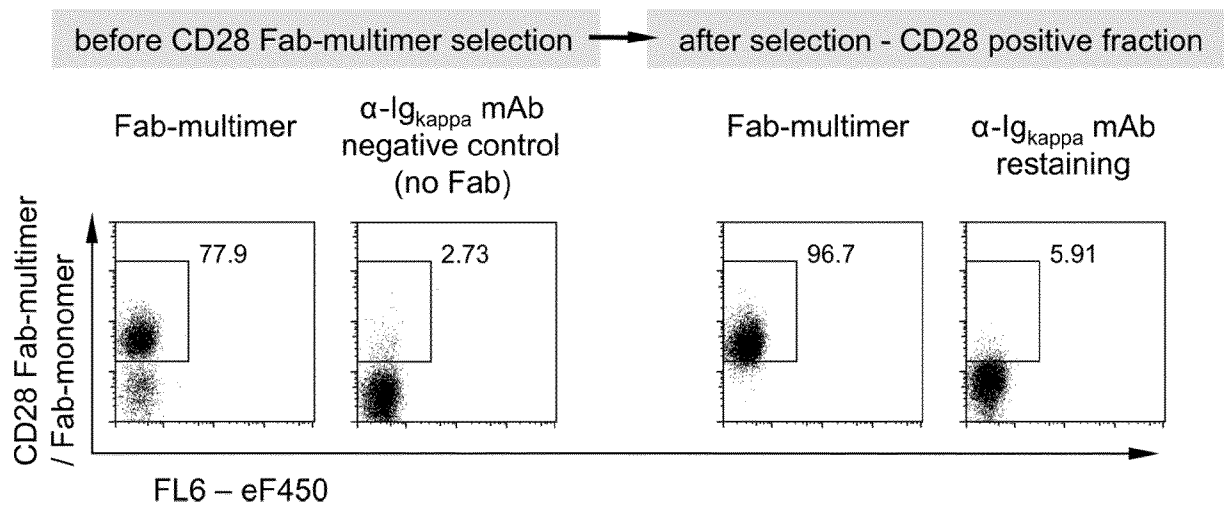


Figure 8

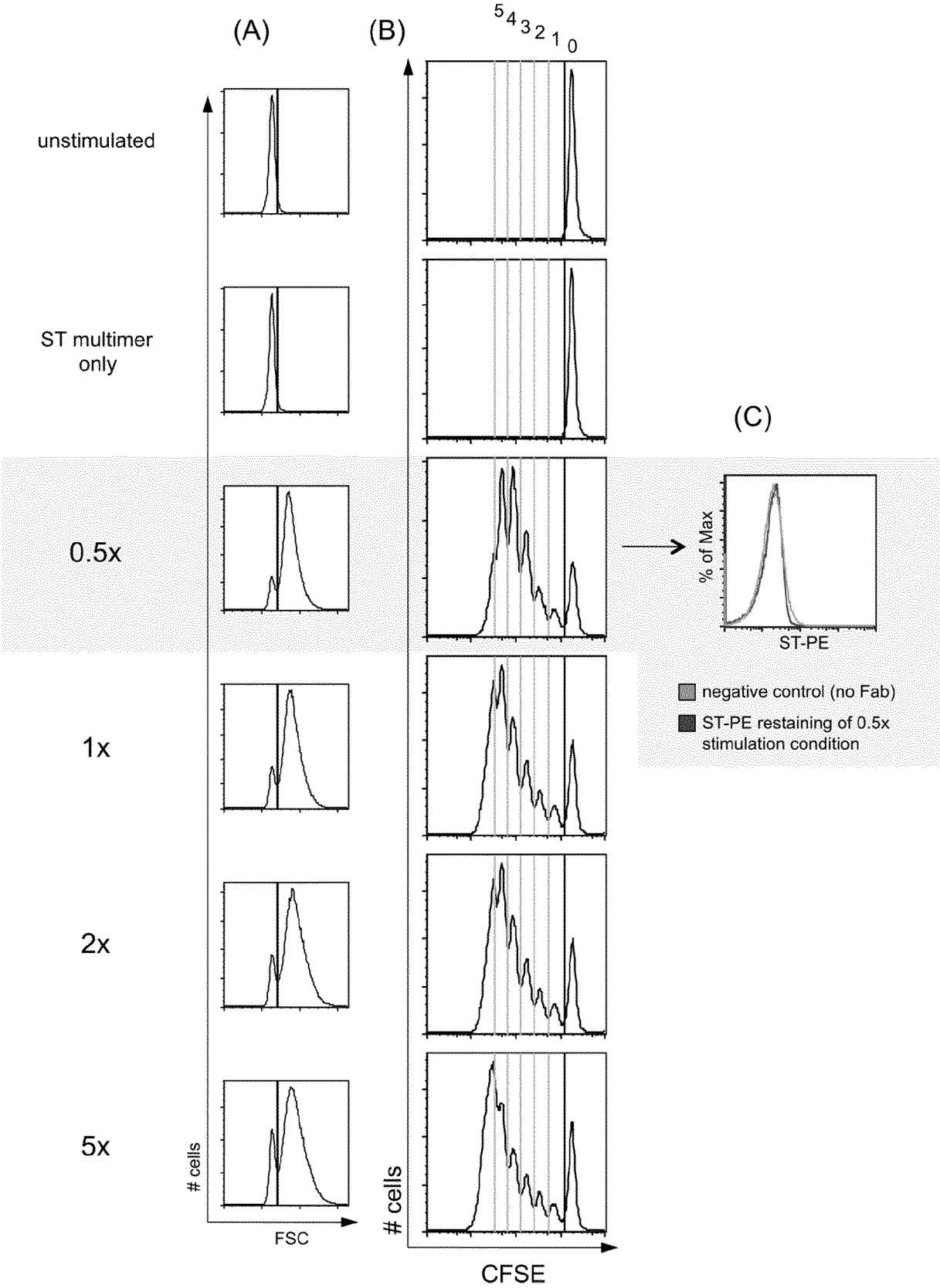


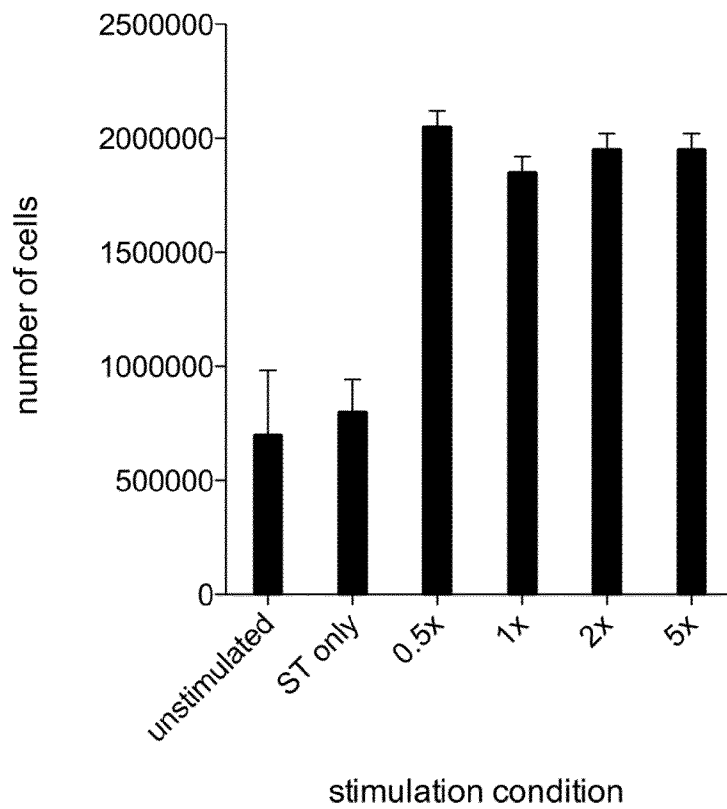
Figure 8 (continued)**Figure 8D**

Figure 8 (continued)

Figure 8E

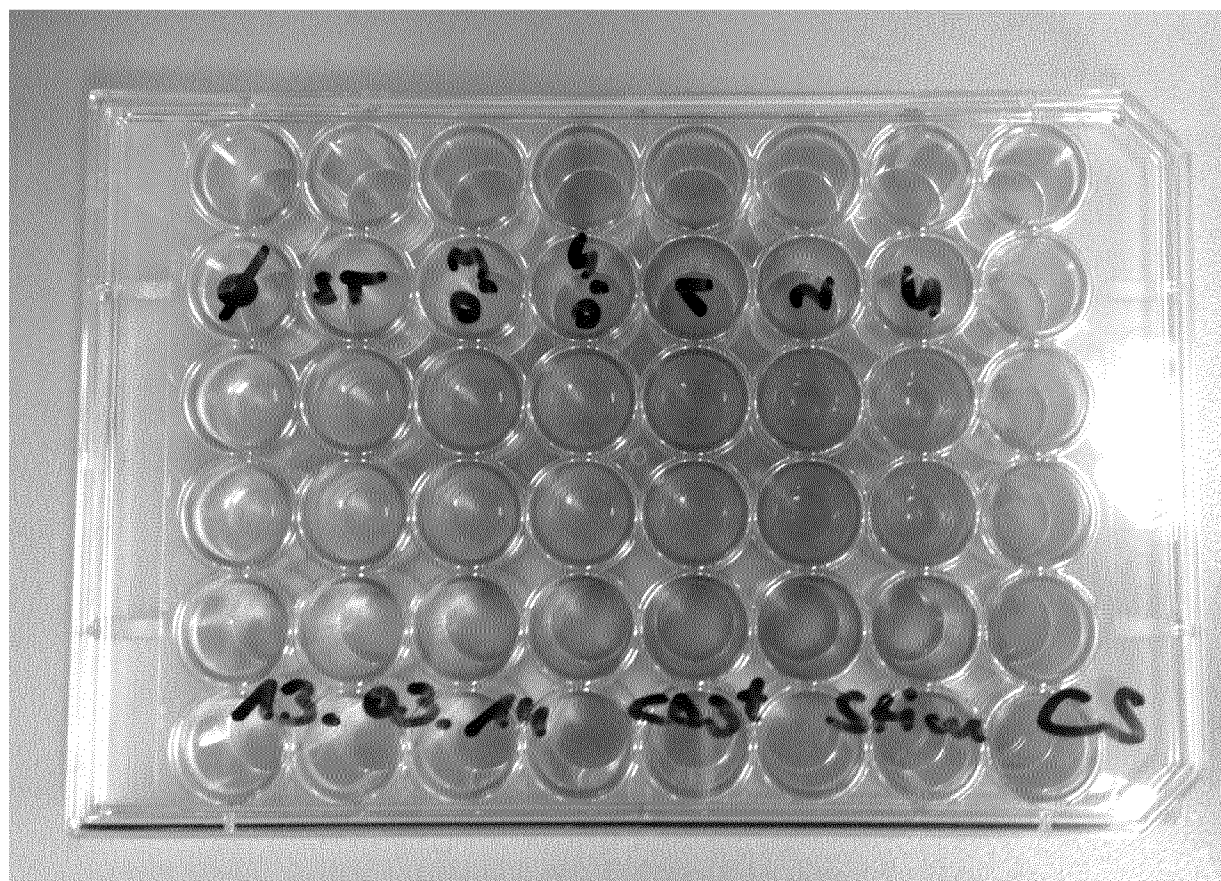
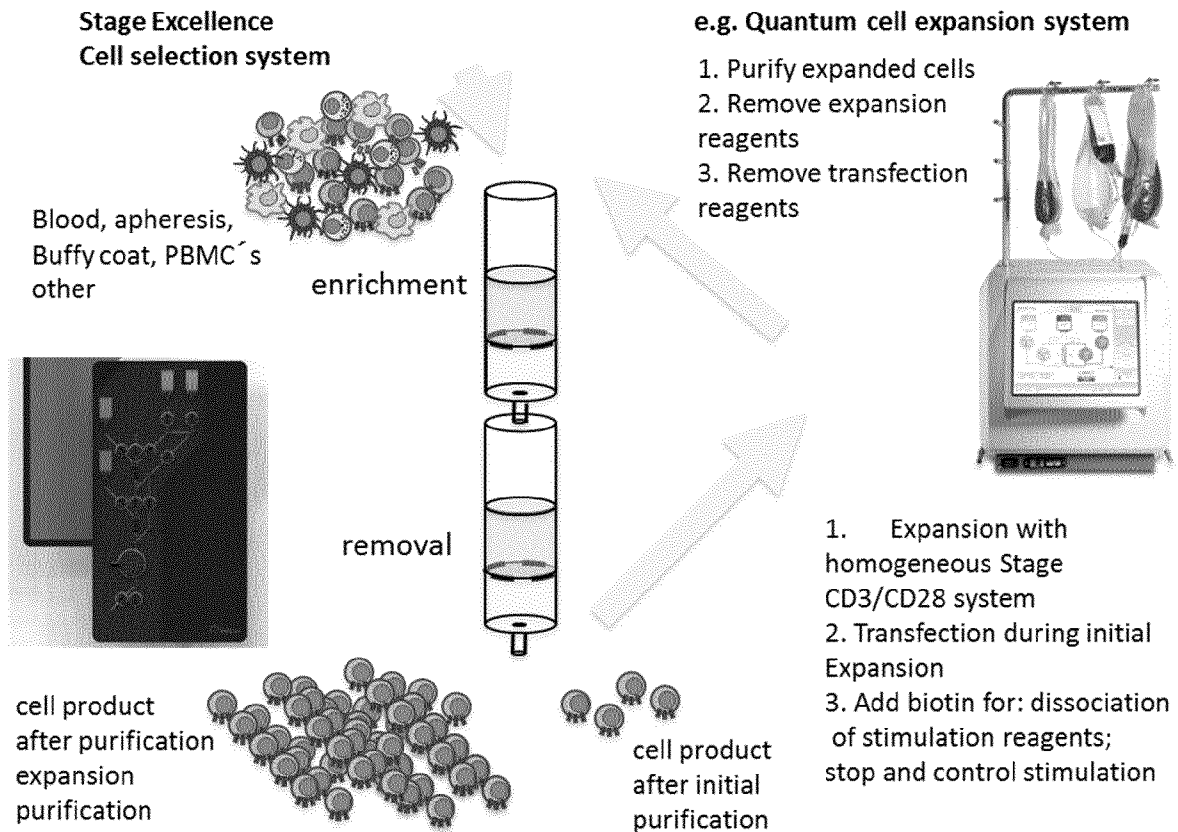


Figure 9**Figure 9a****Figure 9b**

Coupling of CATCH selection with homogeneous cell expansion

- Closed system enables to shuttle cells back and fro from purification to expansion in one process
- Expansion with homogeneous Stage CD3/CD28 (no beads involved) reagents ideally suited for this closed system since no magnetic beads have to be removed
- Transfection can be integrated in the closed process
- Add biotin for: dissociation of stimulation reagents stop and control stimulation
- Homogeneous assay enable successive generic (CD3/CD28) and receptor-specific expansion

Figure 10

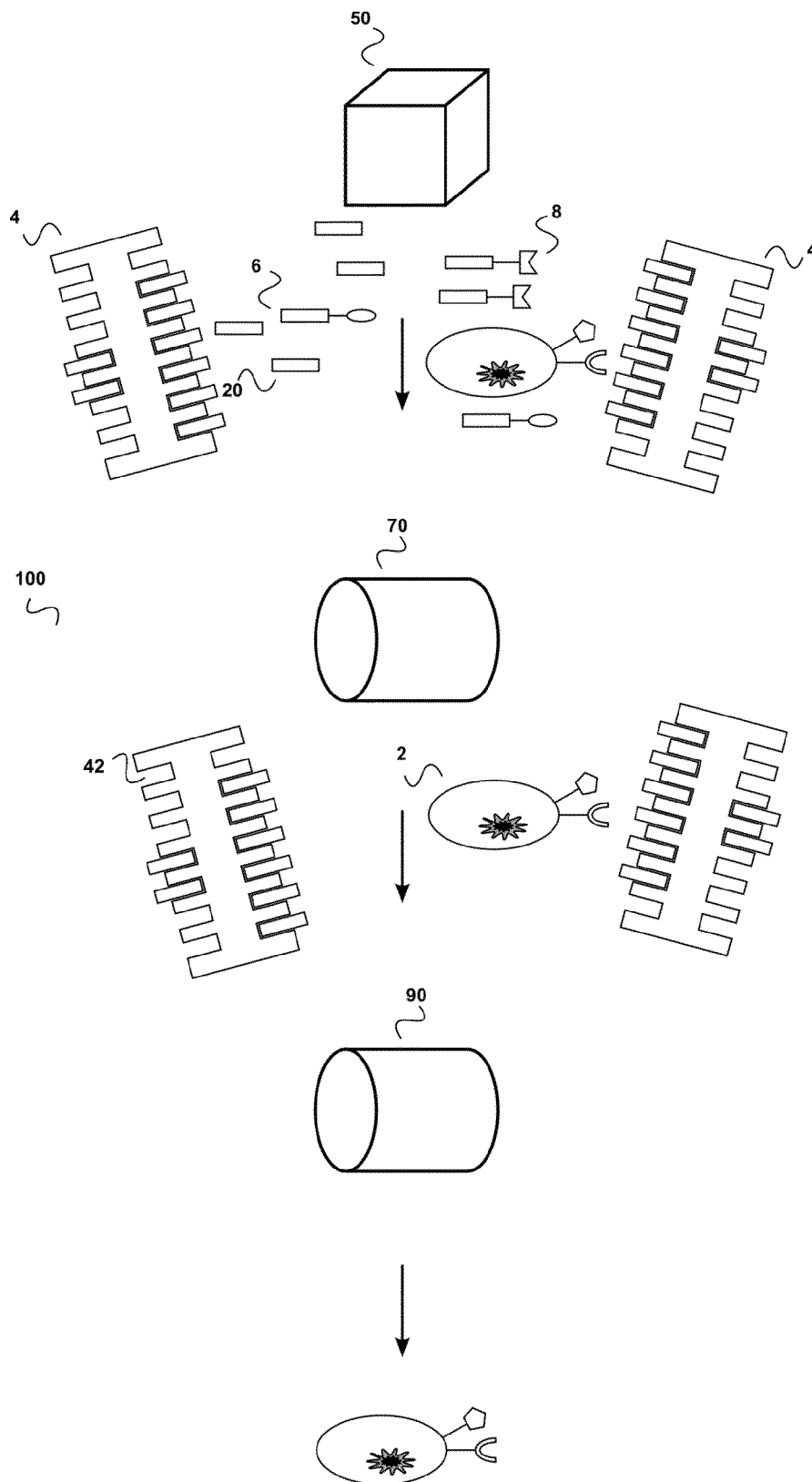


Figure 11

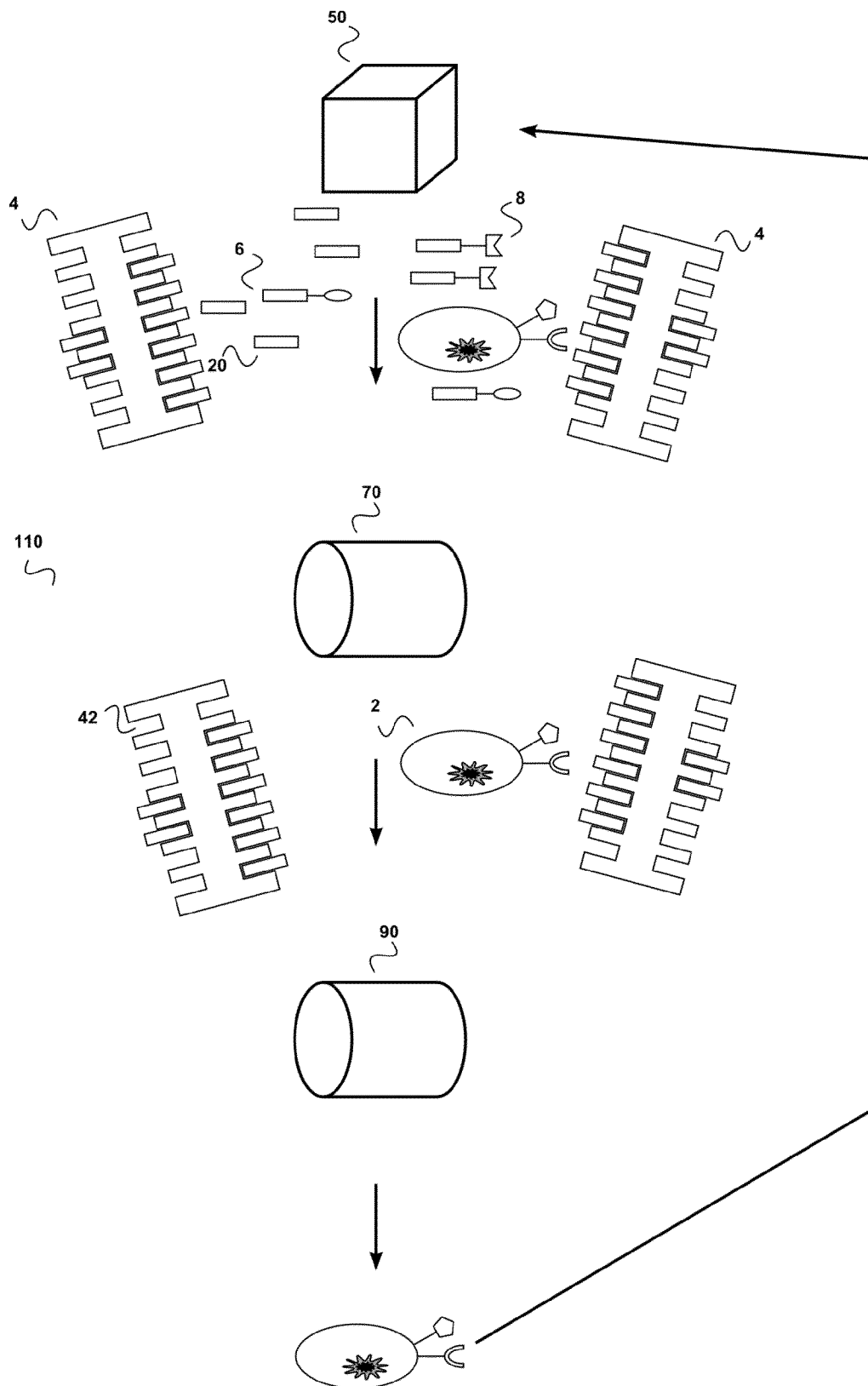


Figure 12

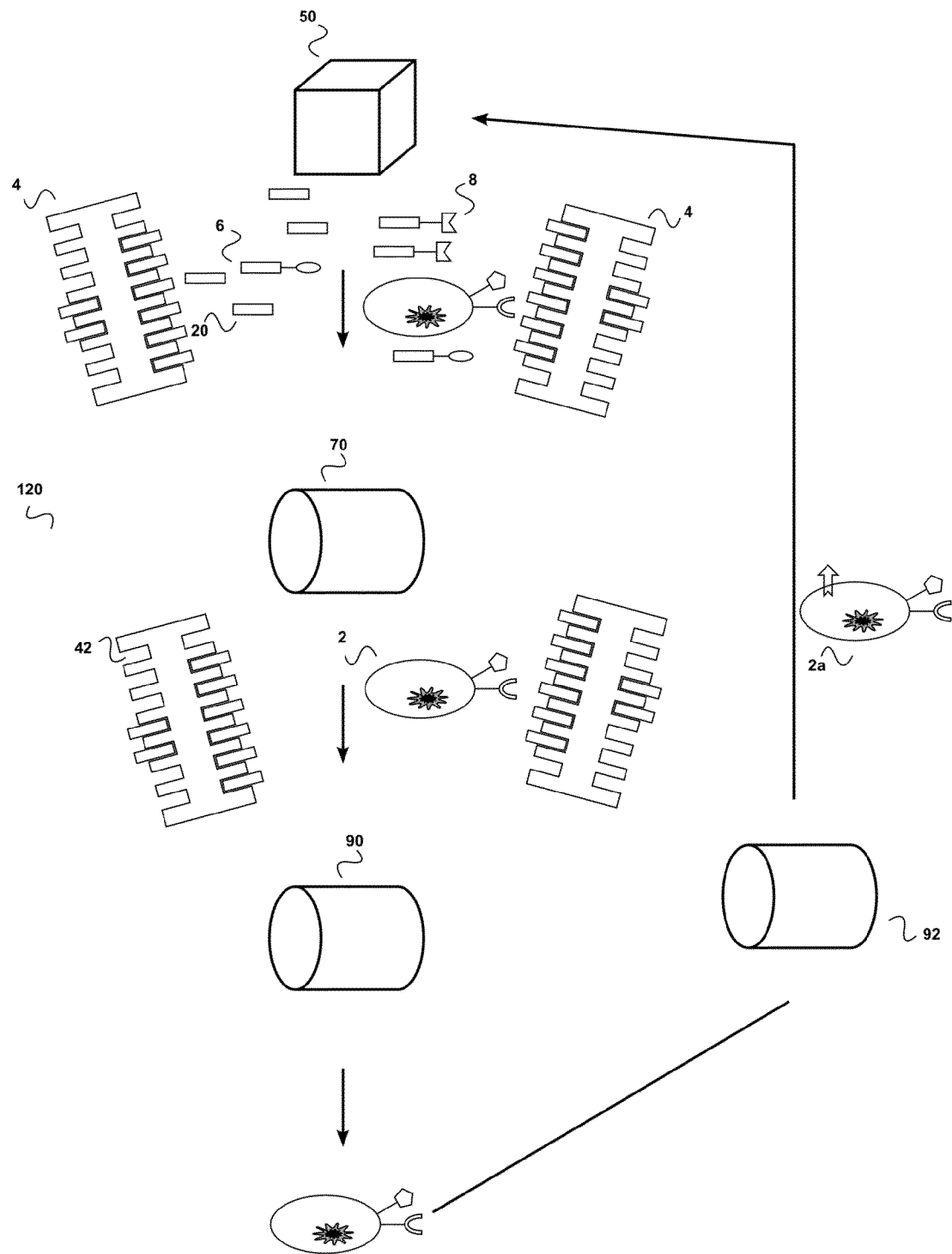


Figure 13

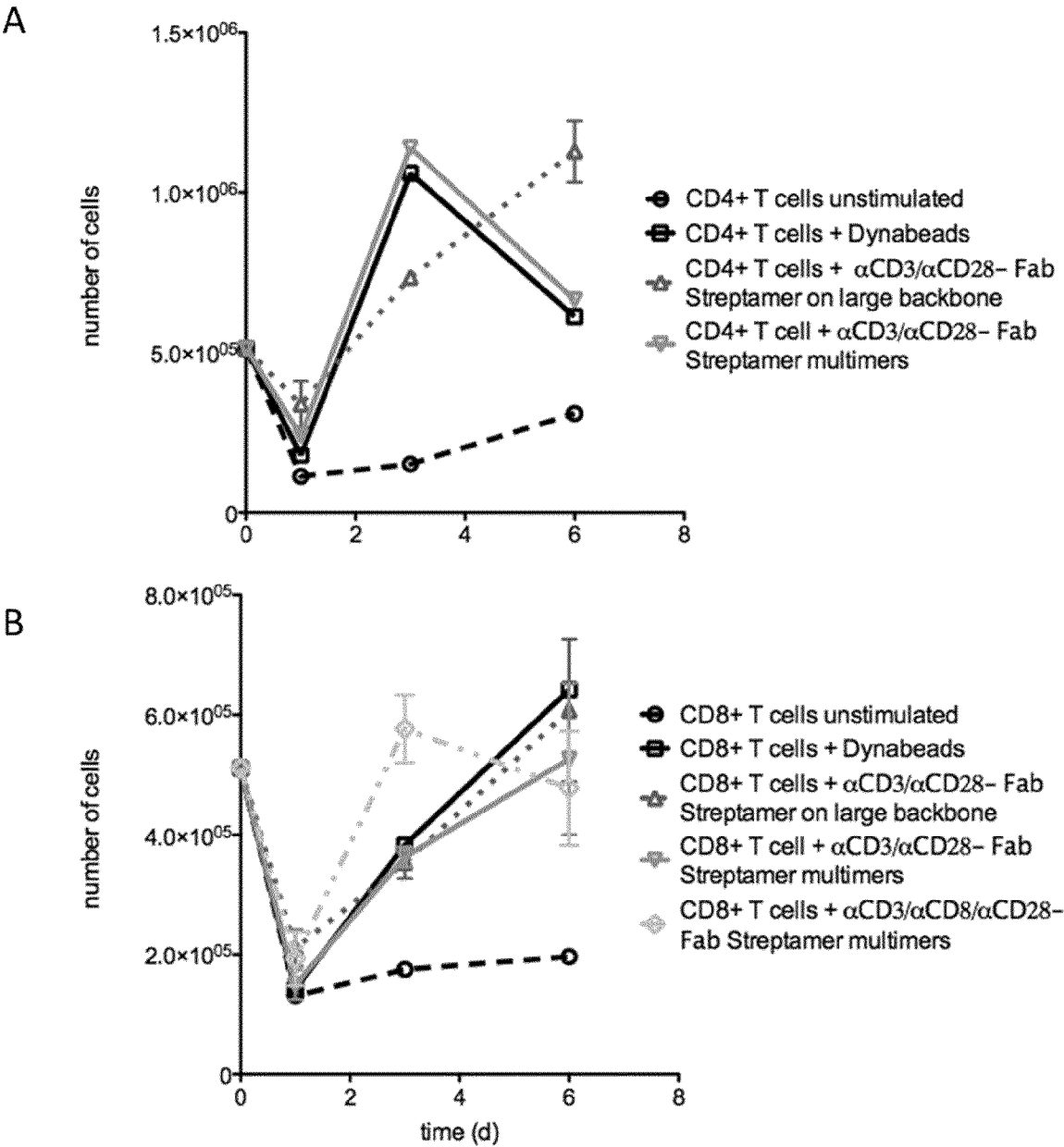


Figure 14

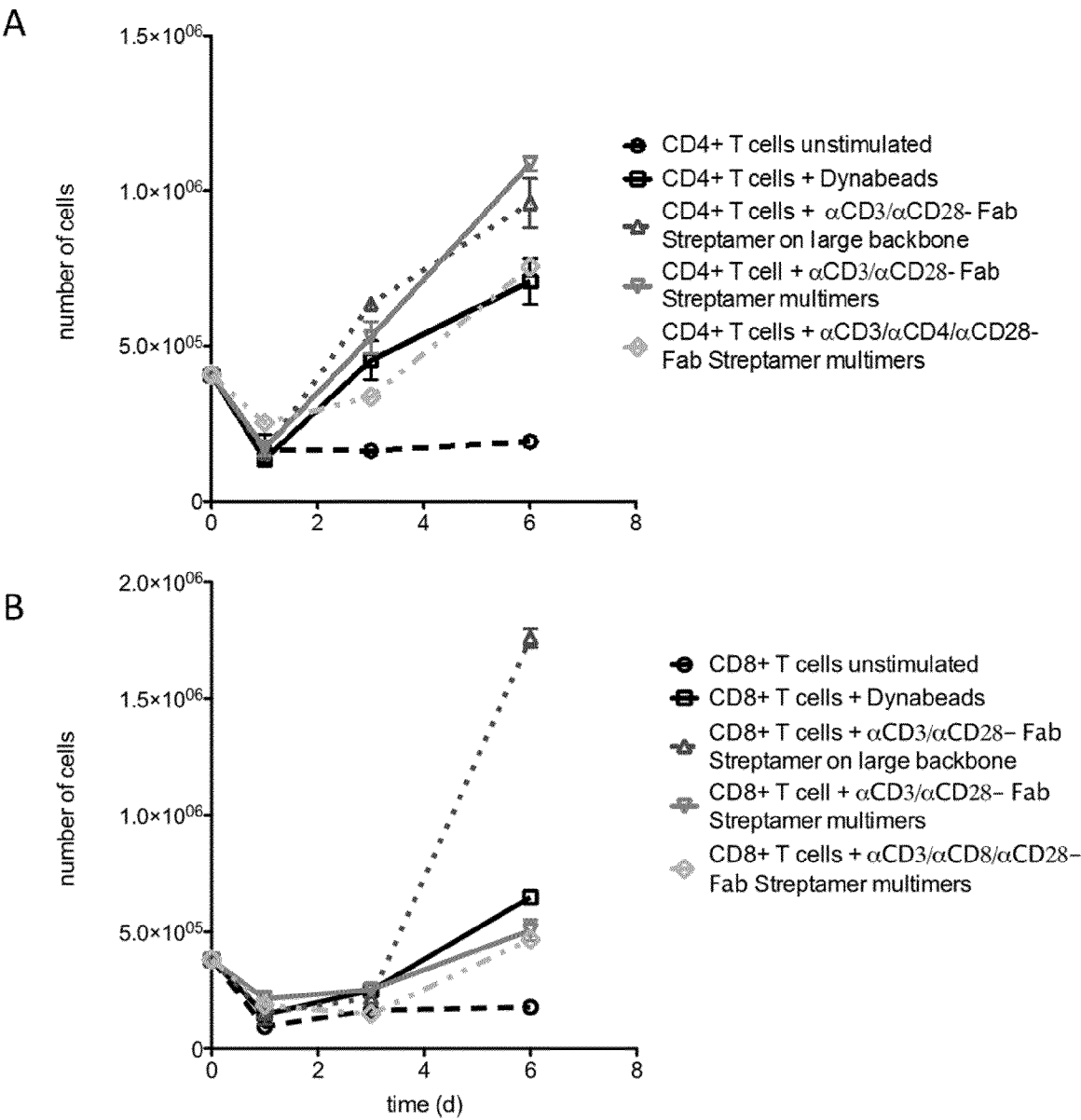


Figure 15

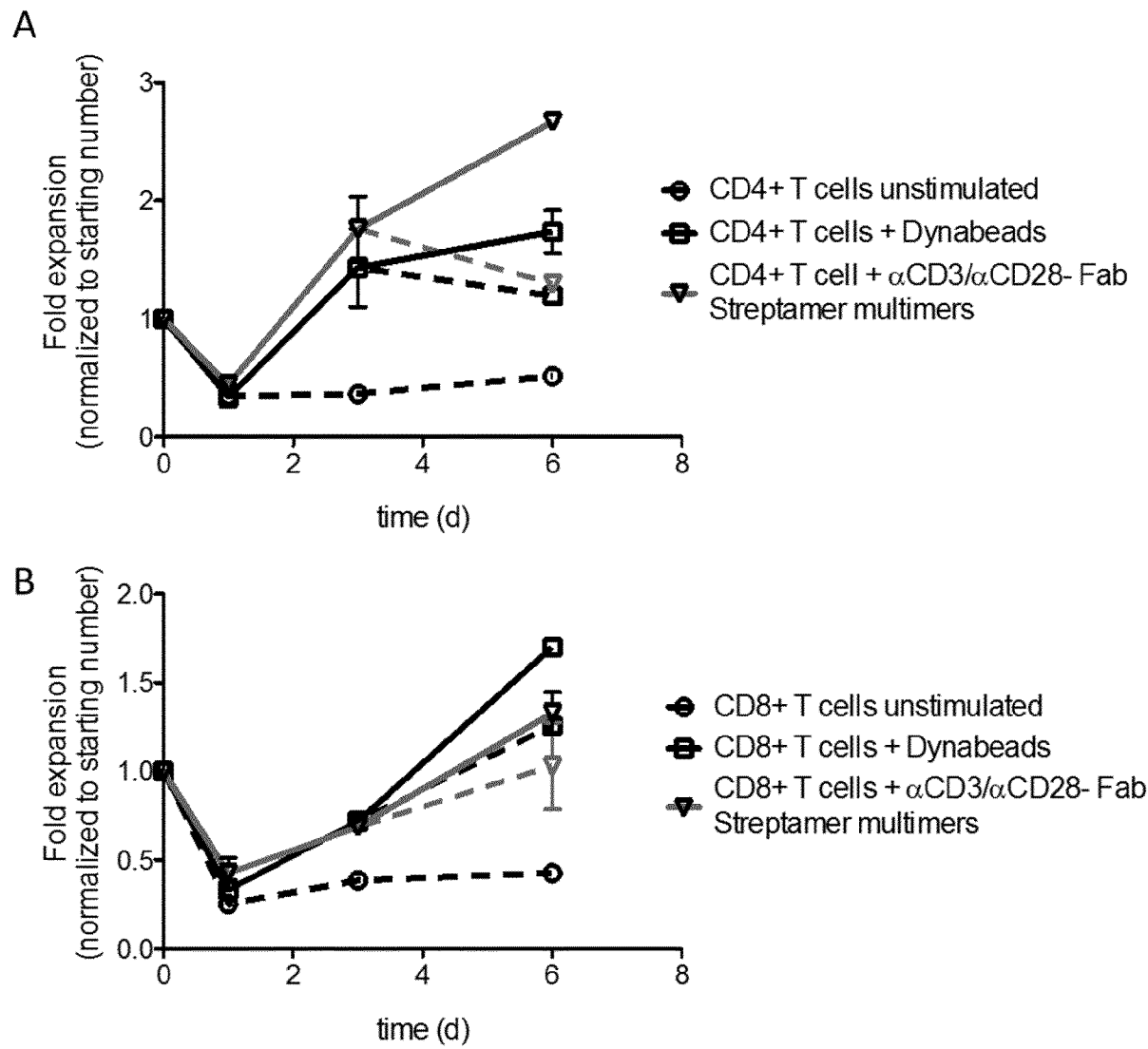


Figure 16

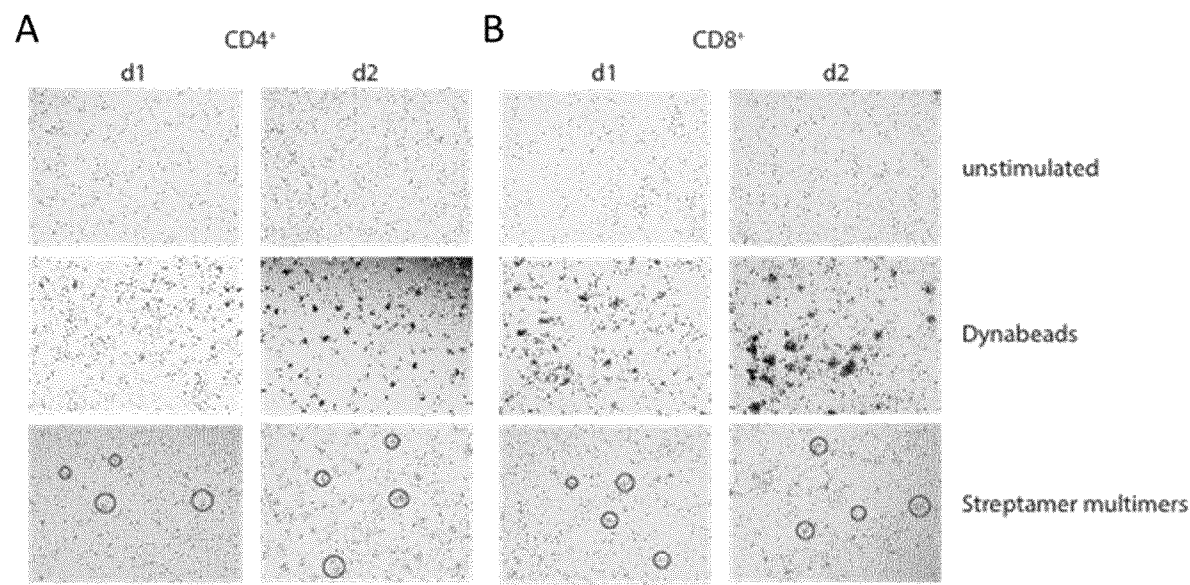


Figure 17

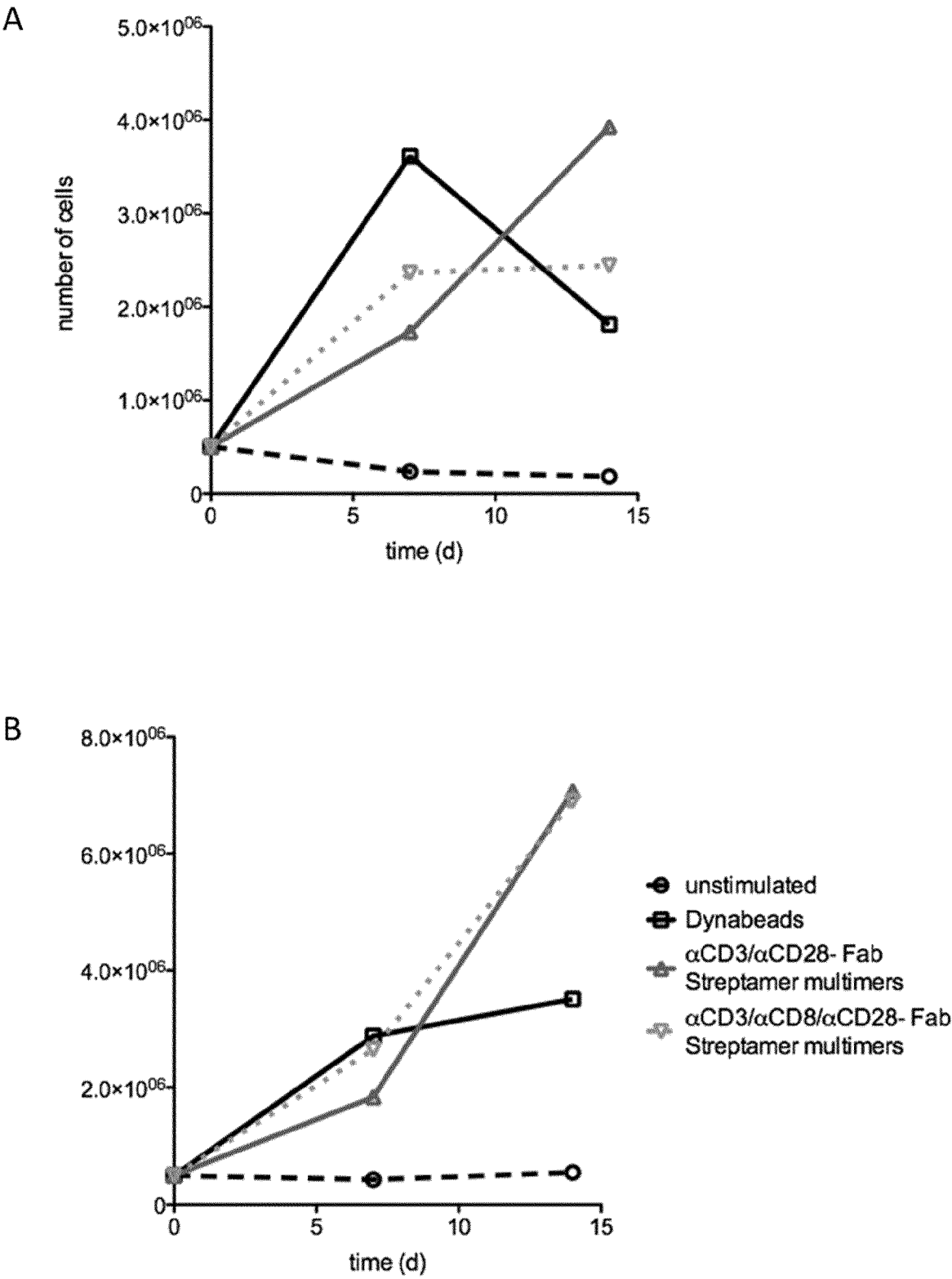


Figure 17 (continued)

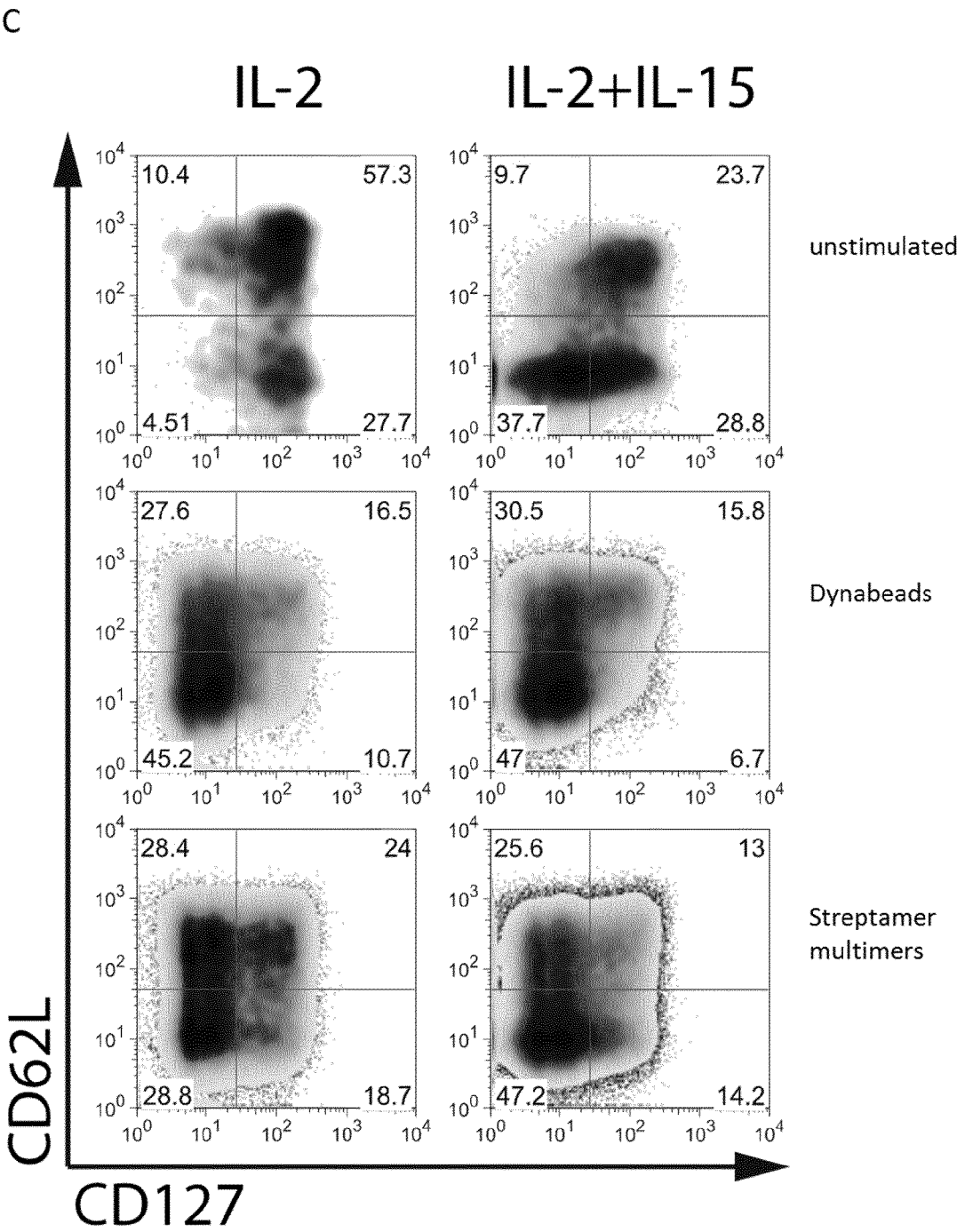


Figure 18

A

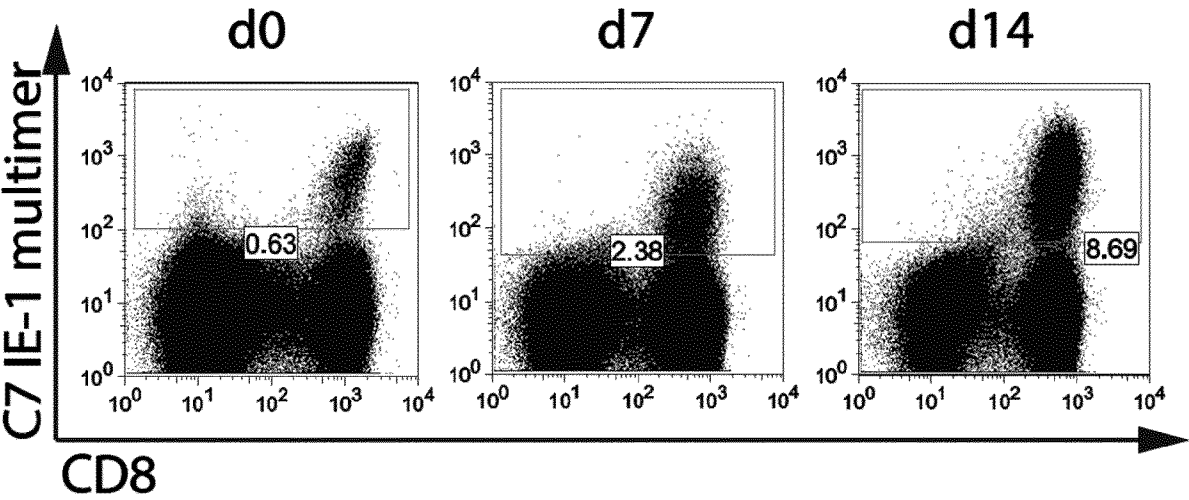


Figure 18 (continued)

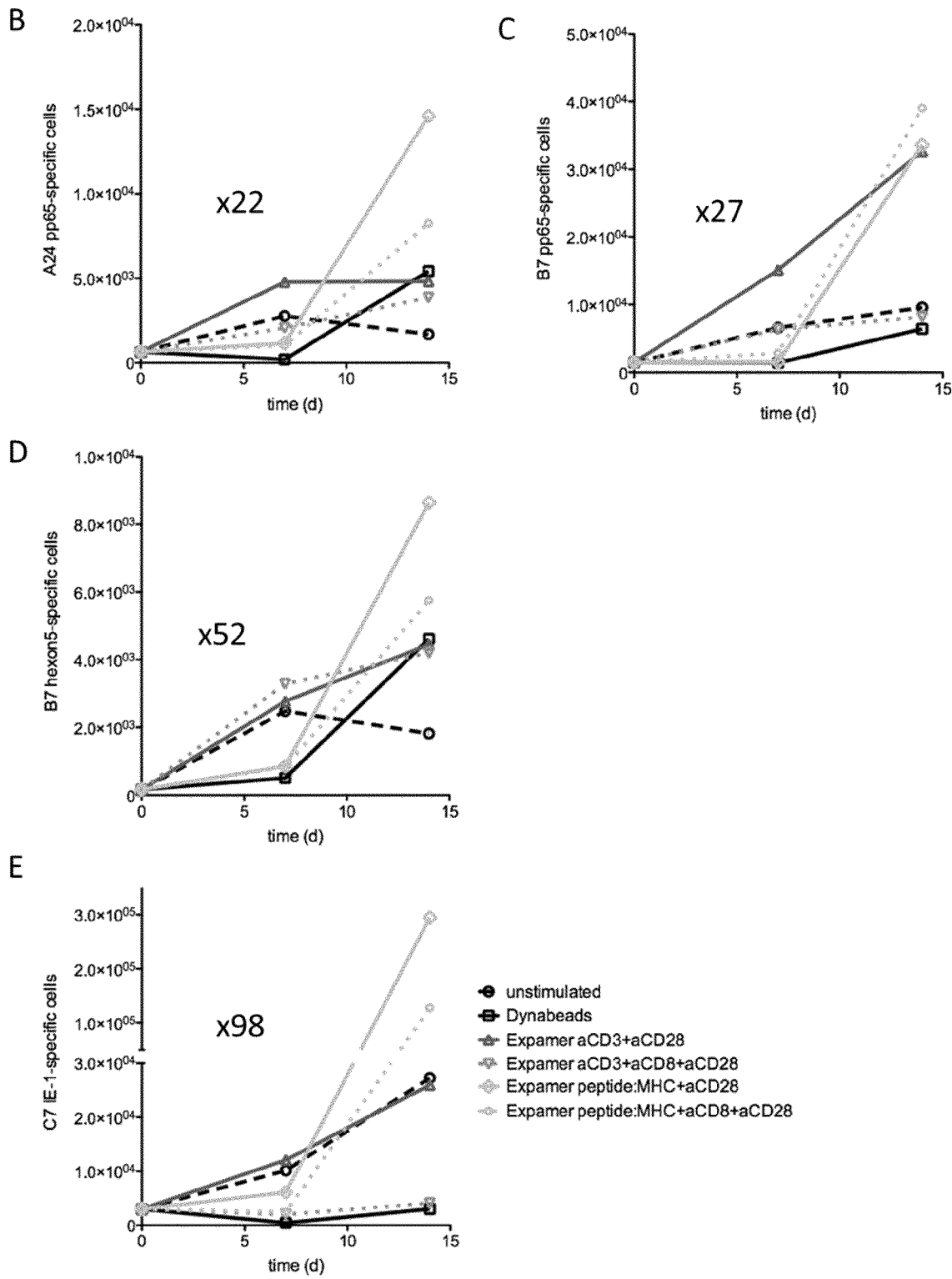


Figure 18 (continued)

Figure 18F

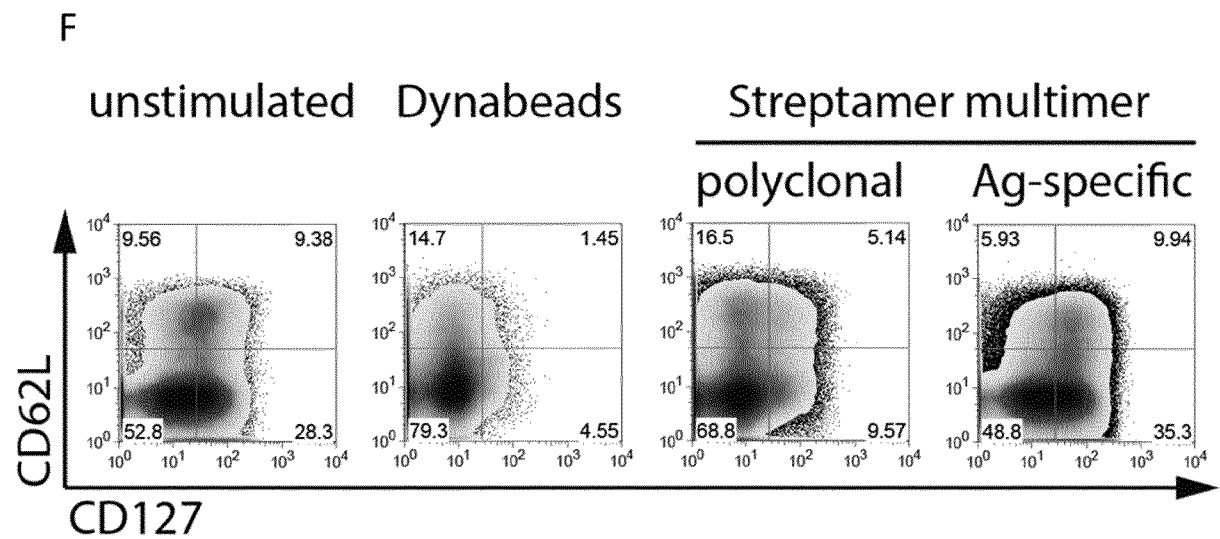
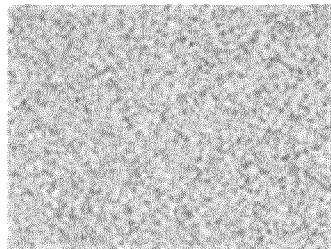
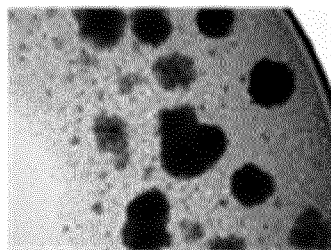


Figure 19

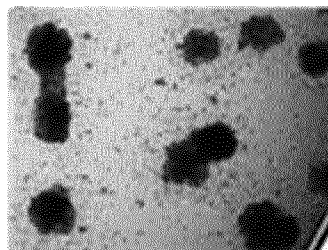
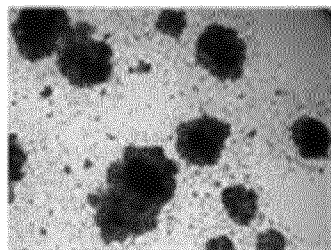


unstimulated

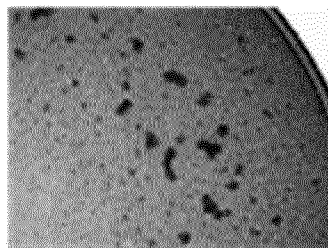
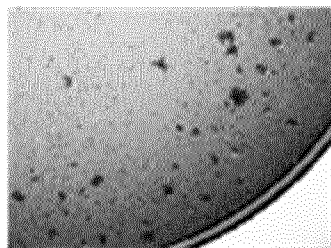


Dynabeads

+ α CD8-Fab



polyclonal
Streptamer multimer



Ag-specific
Streptamer multimer

Figure 20

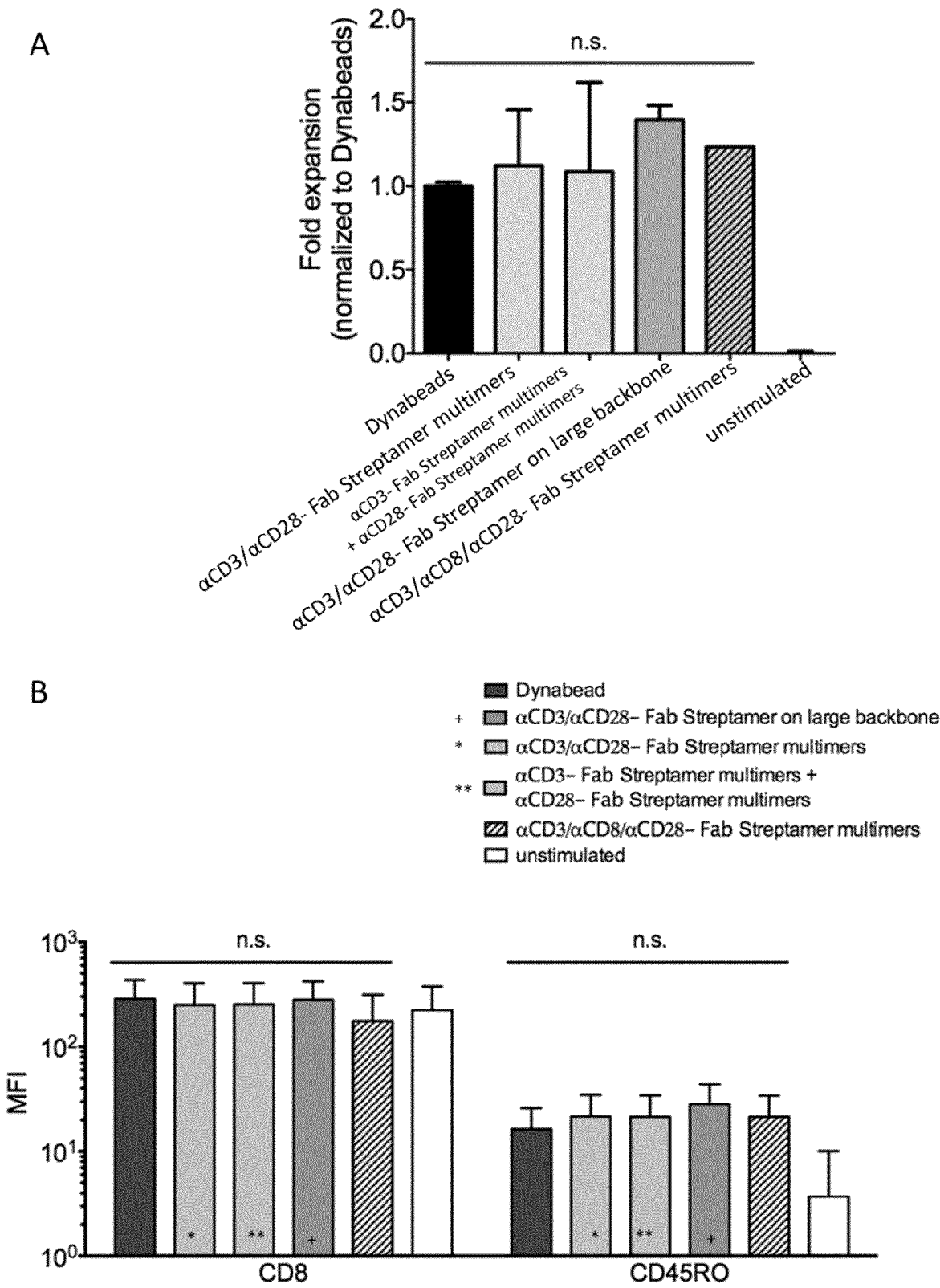
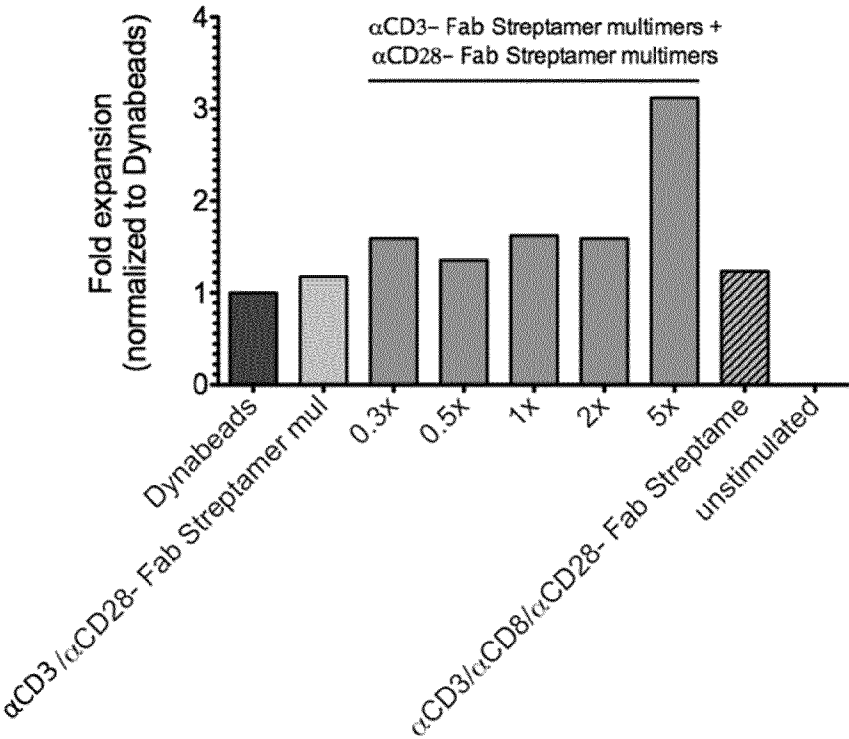


Figure 21

A



B

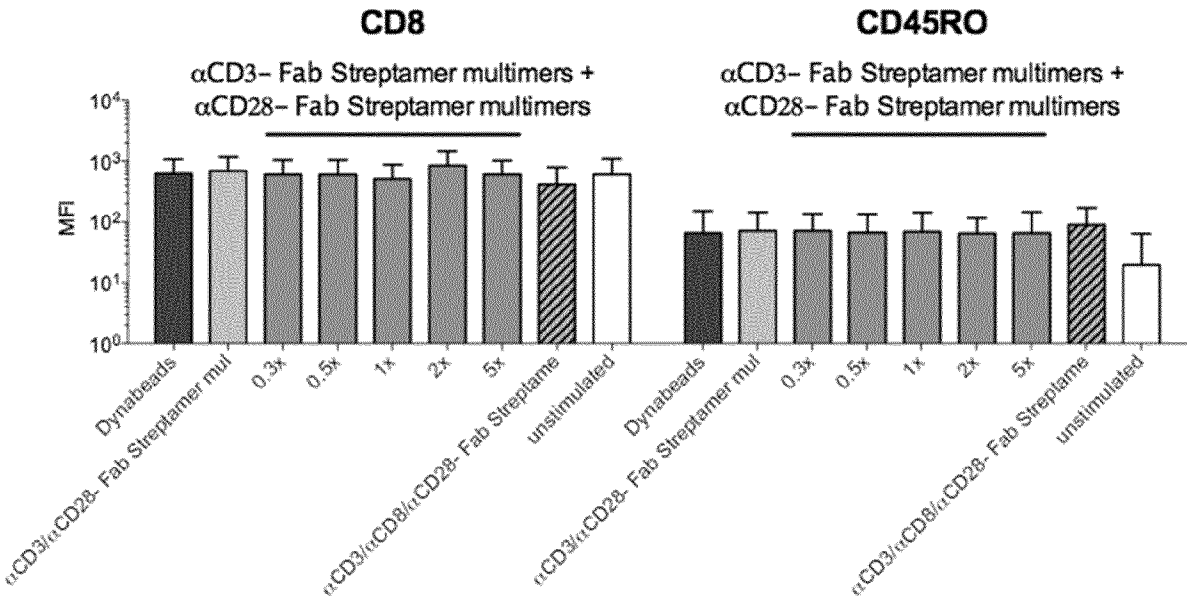


Figure 22

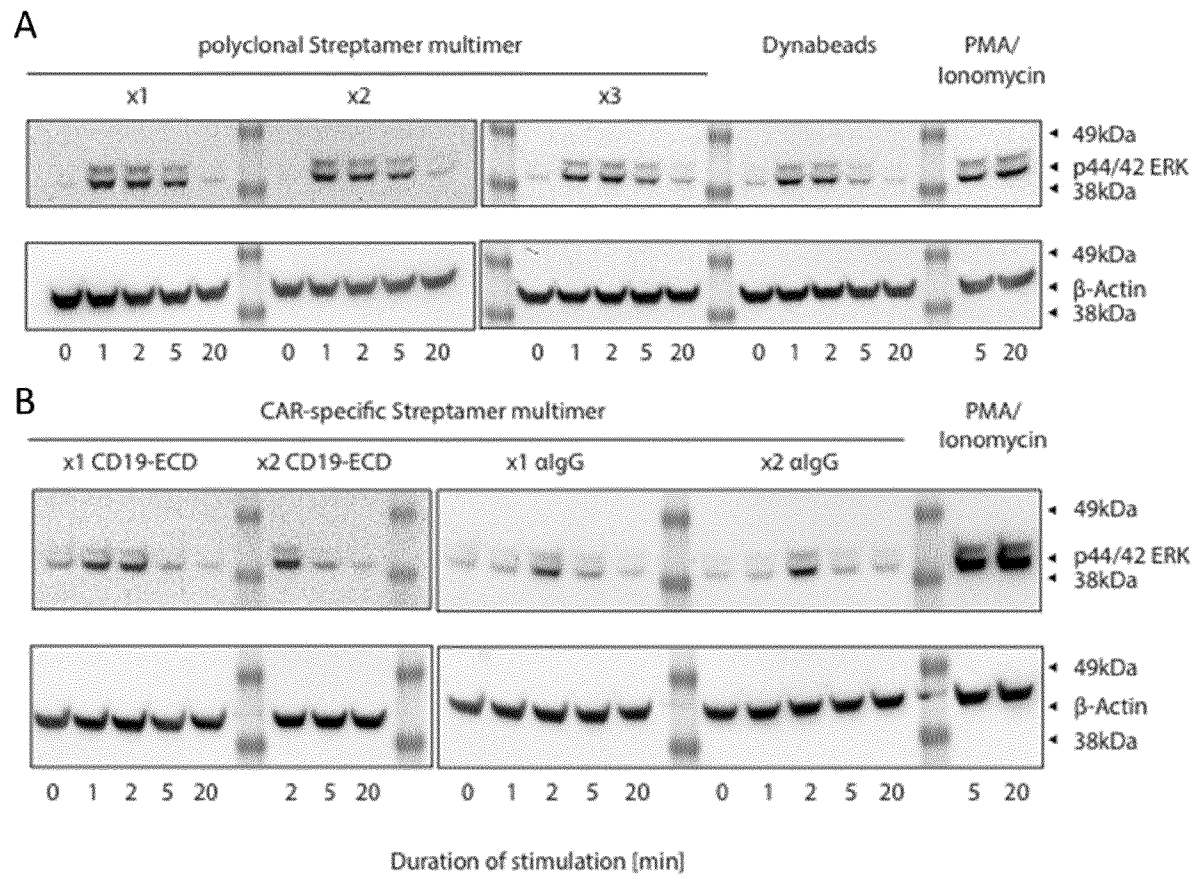
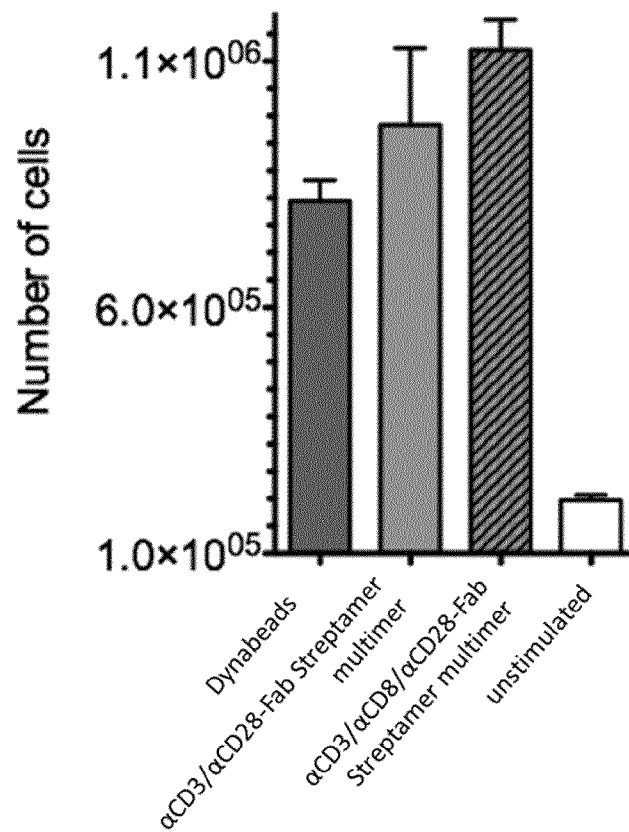


Figure 23

A



B

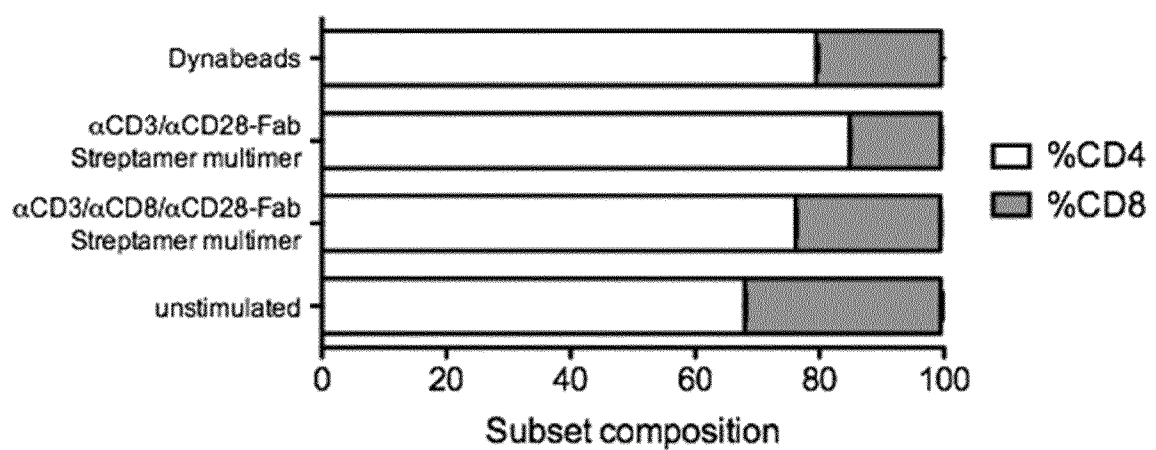


Figure 24