

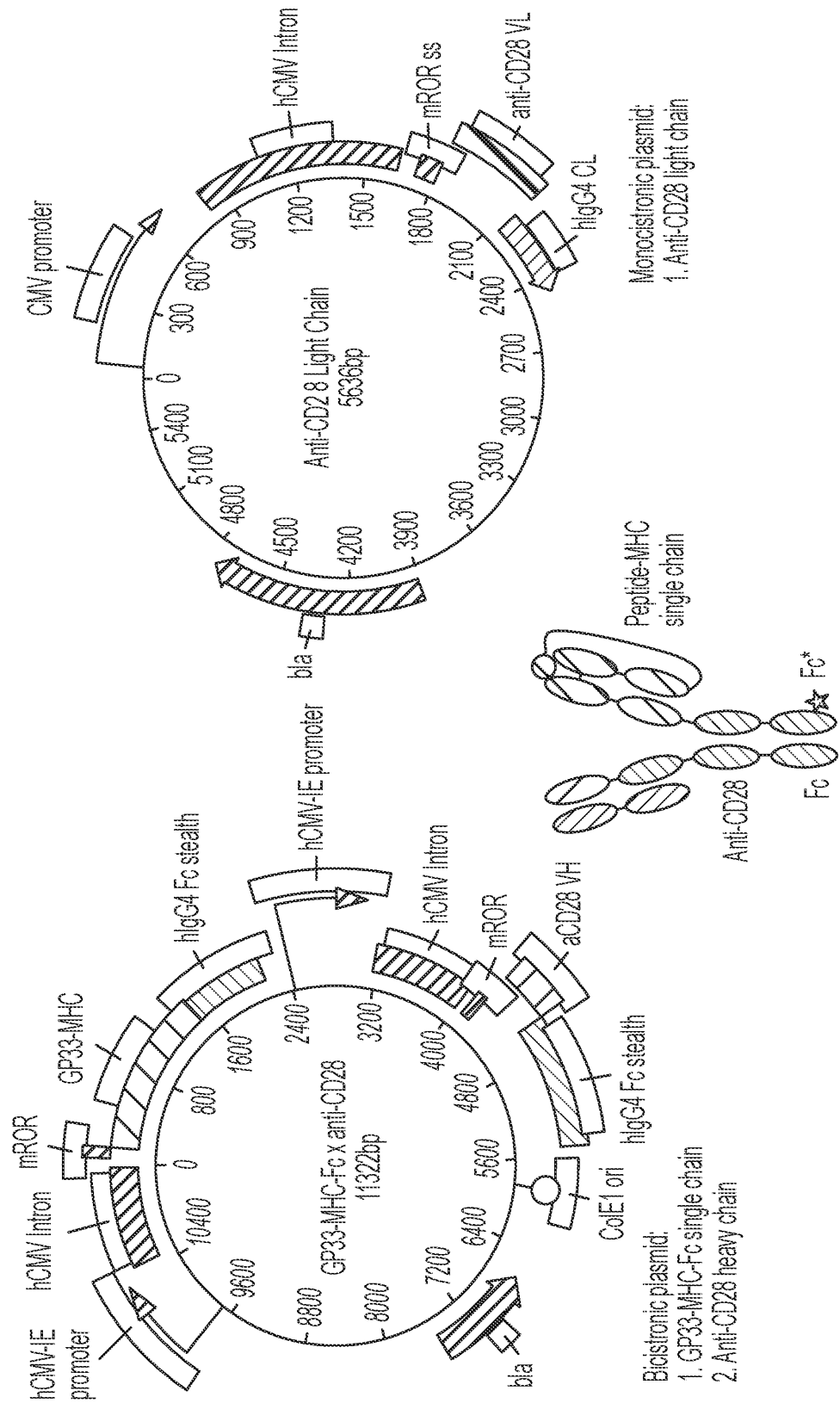


FIG. 1

Confirmation of CD8 T cell enrichment from LCMV immune splenocytes

Gating Strategy (Day 0): Enrichment for CD8 T cells from C57BL/6 splenocytes flow cytometry analysis for CD8+ and CD4+ T cells

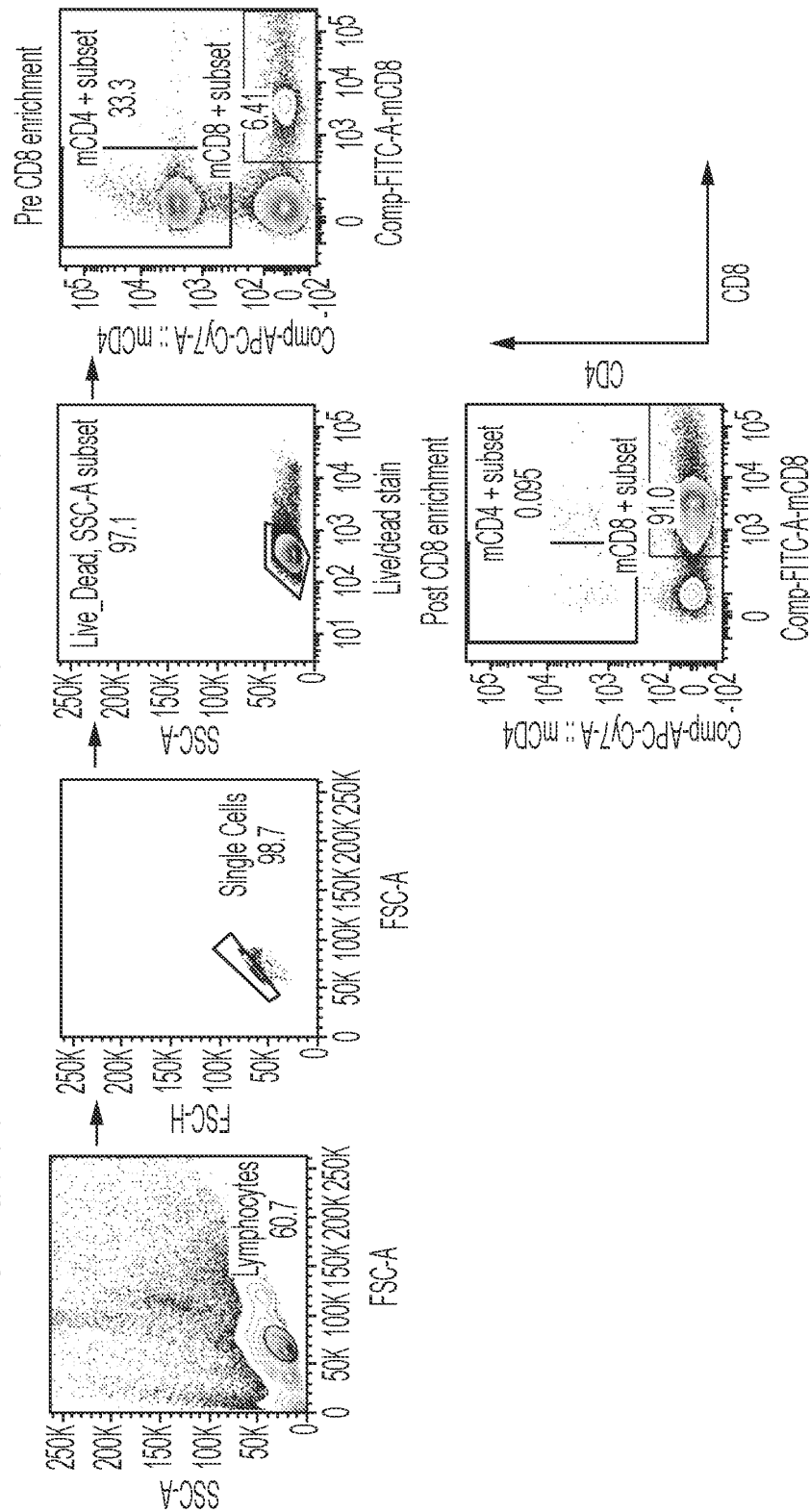


FIG. 2

Gating strategy used to assess proliferation of GP33-specific CD8 T cells in culture
Gating Strategy (Day 7): Expansion of GP33-specific CD8 T cells *in vitro* with bispecific GP33-MHC x anti-CD28 molecule

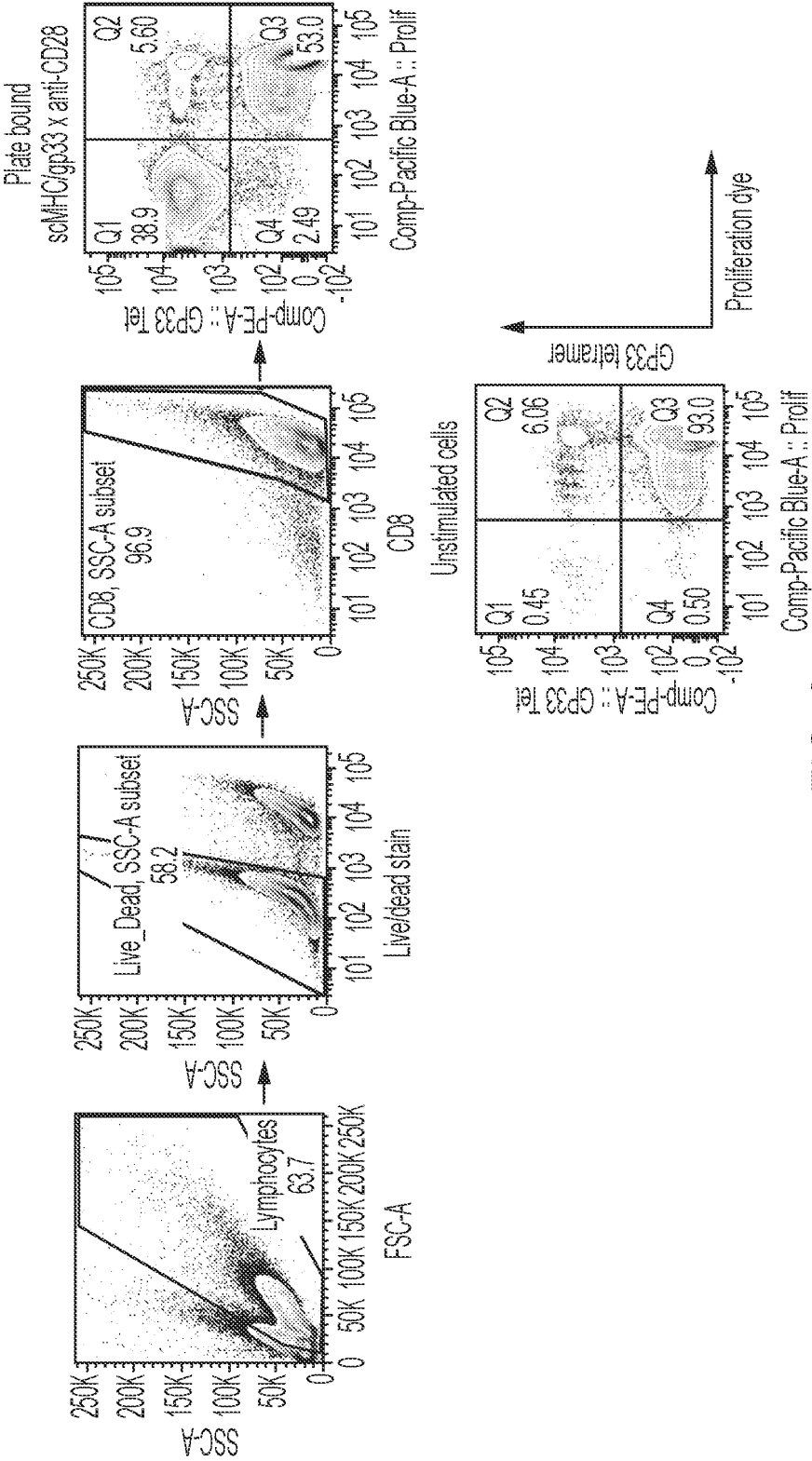
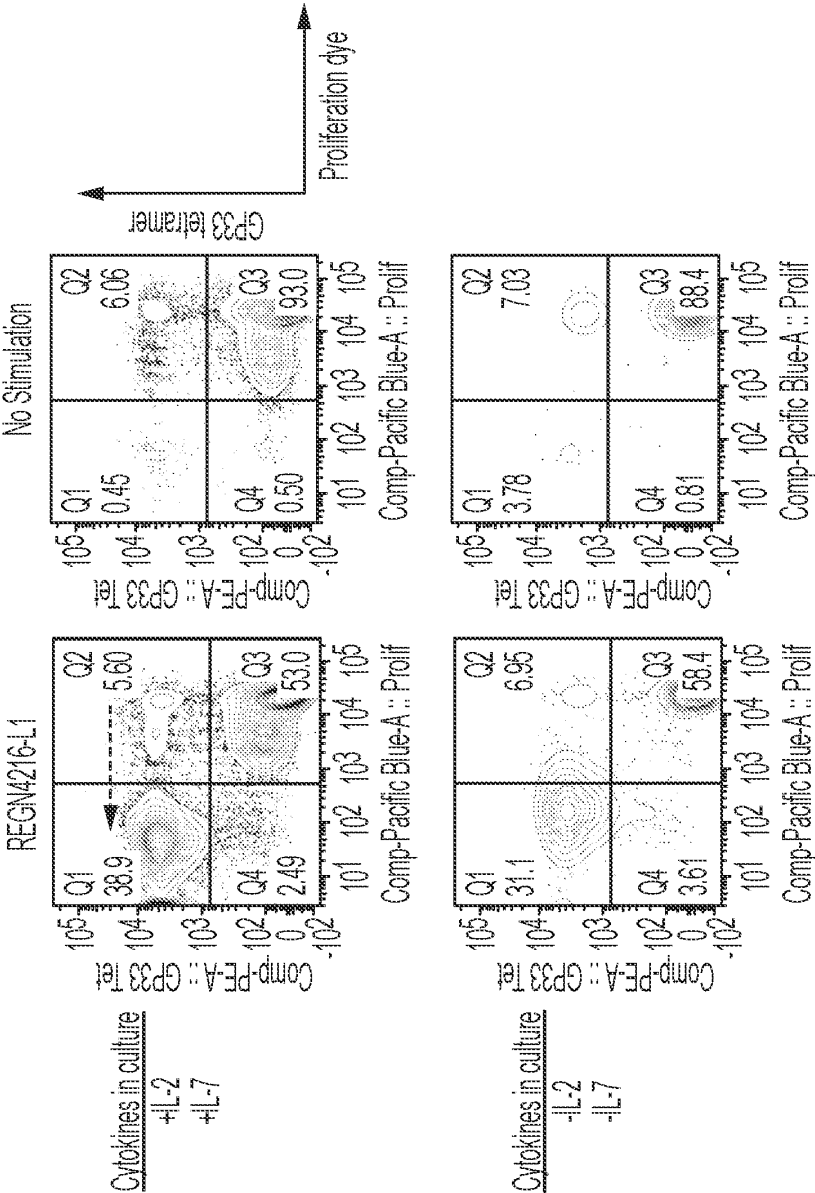


FIG. 3

Effect of cytokines in culture on the expansion of GP33-specific CD8 T cells stimulated *in vitro* with plate bound bispecific GP33-MHC x anti-CD28 molecule



5/29

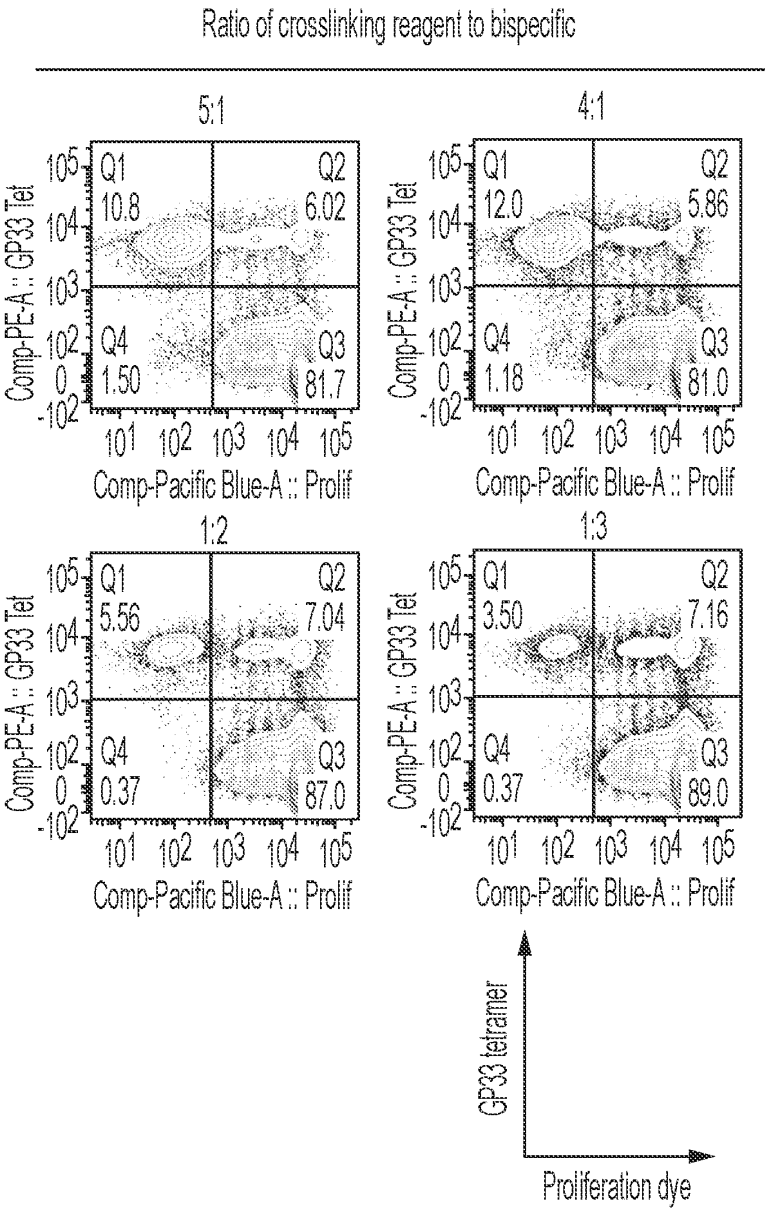


FIG. 5

6/29

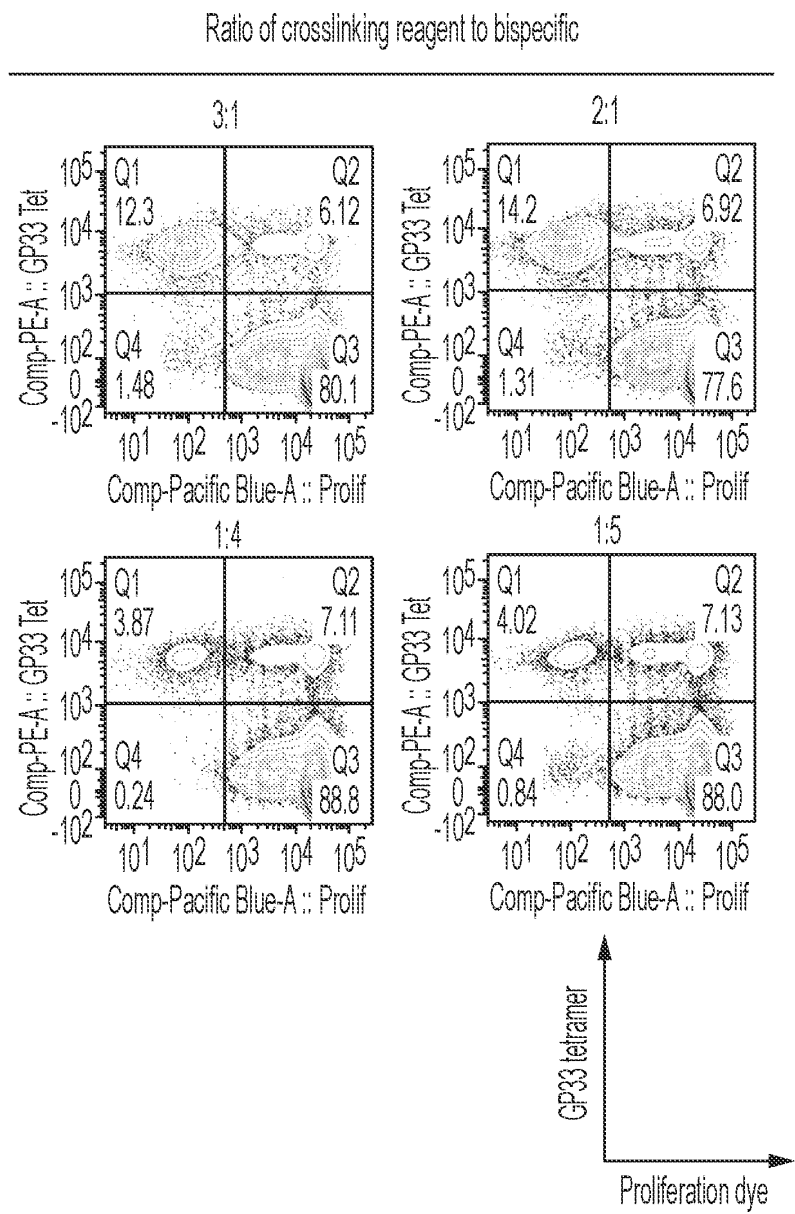


FIG. 5
CONTINUED

7/29

Ratio of crosslinking reagent to bispecific

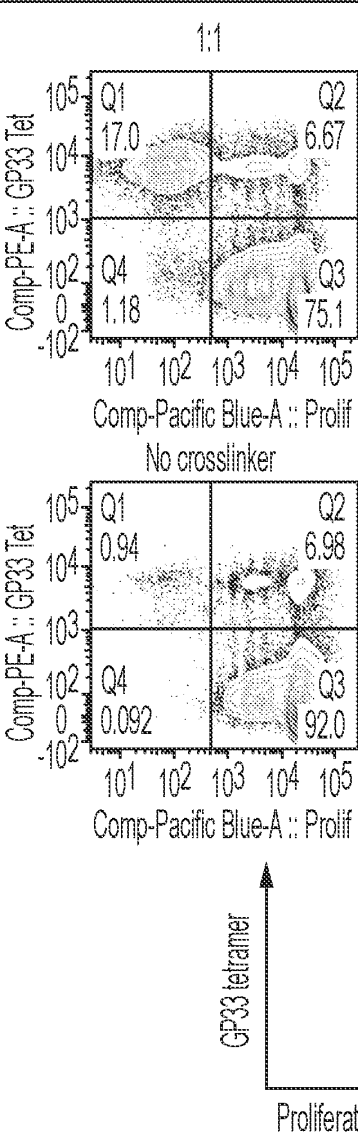


FIG. 5
CONTINUED

8/29

Stimulation of Ag-specific CD8 T Cells by GP33/H-2Db x anti-CD28 IgG1Fc (REGN5810) arrayed on 293-hFcR1 cells

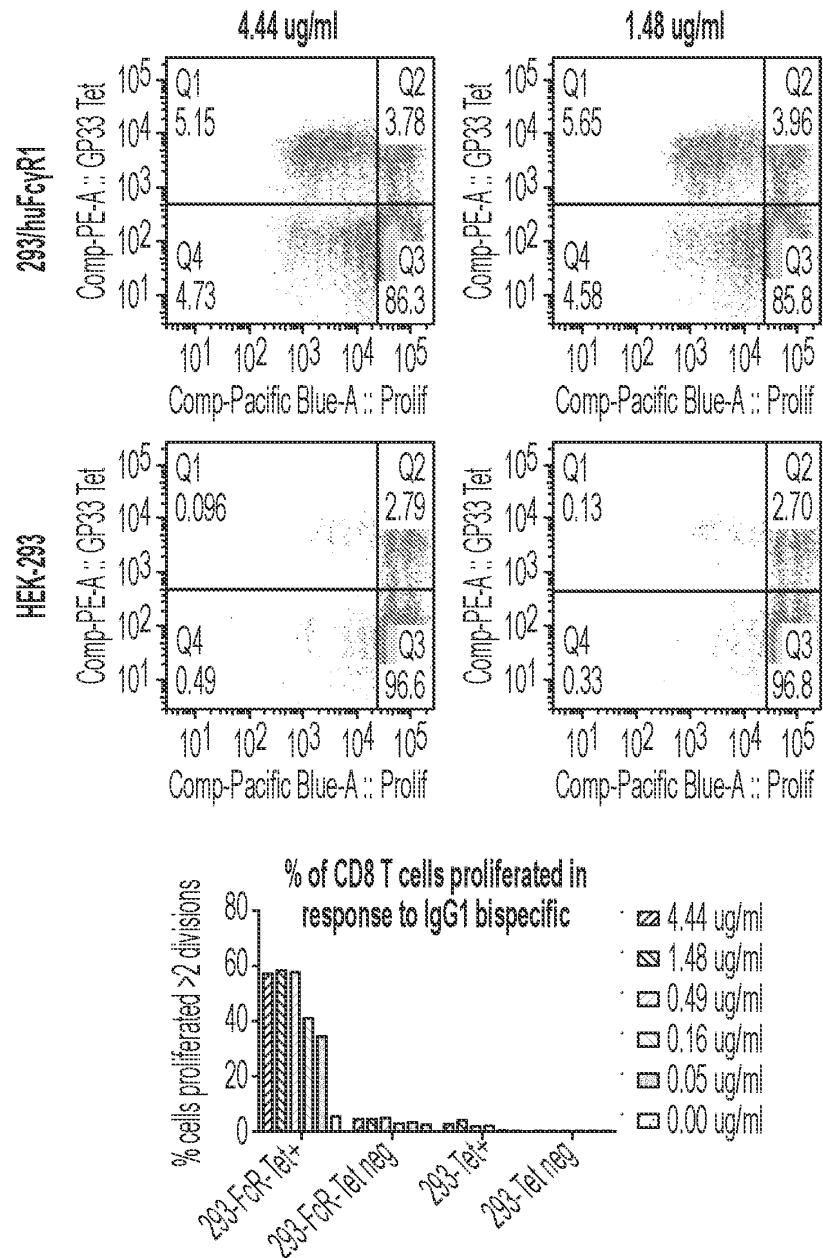


FIG. 6

9/29

Stimulation of Ag-specific CD8 T Cells by GP33/H-2Db x anti-CD28 IgG1Fc (REGN5810) arrayed on 293-hFcR1 cells

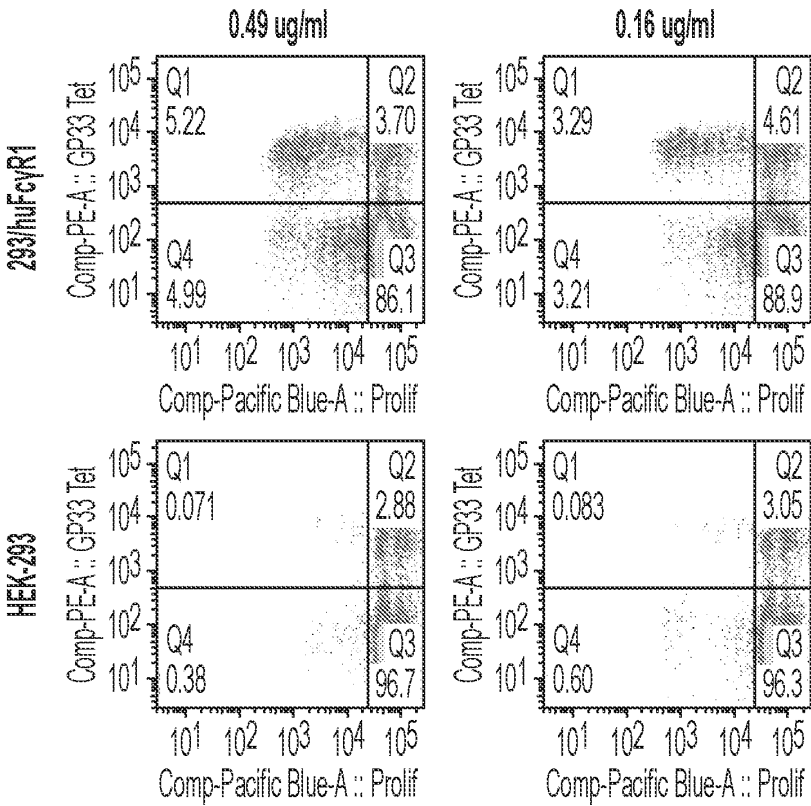


FIG. 6
CONTINUED

10/29

Stimulation of Ag-specific CD8 T Cells by GP33/H-2Db x anti-CD28 IgG1Fc (REGN5810) arrayed on 293-hFcR1 cells

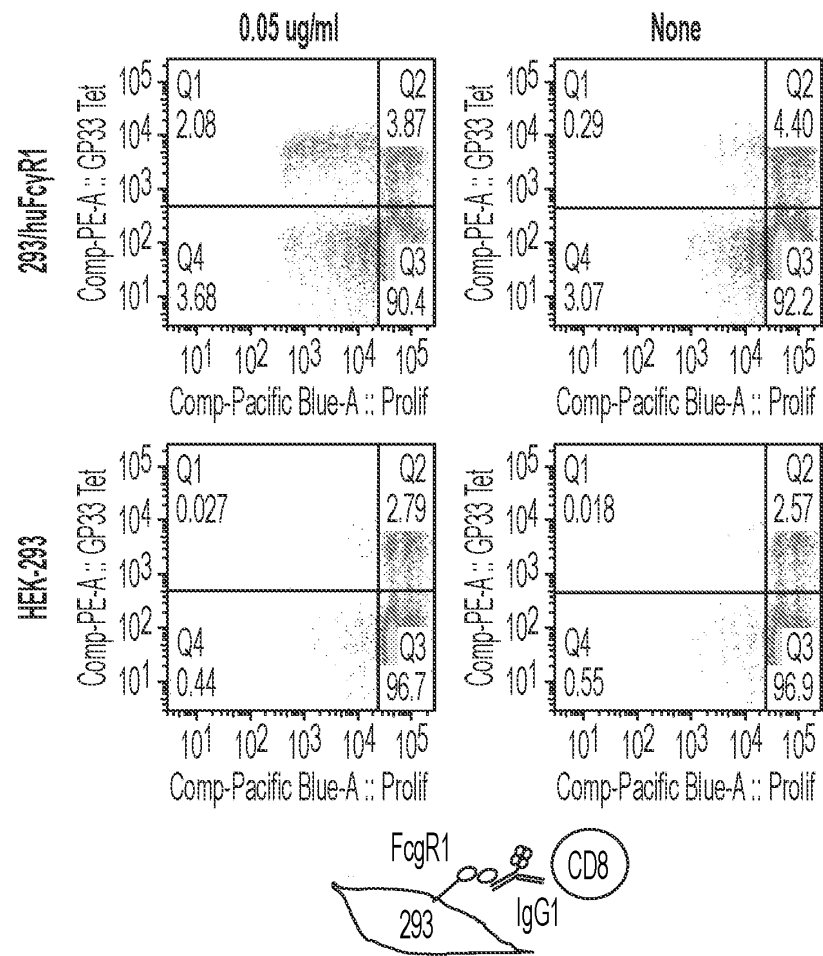


FIG. 6
CONTINUED

11/29

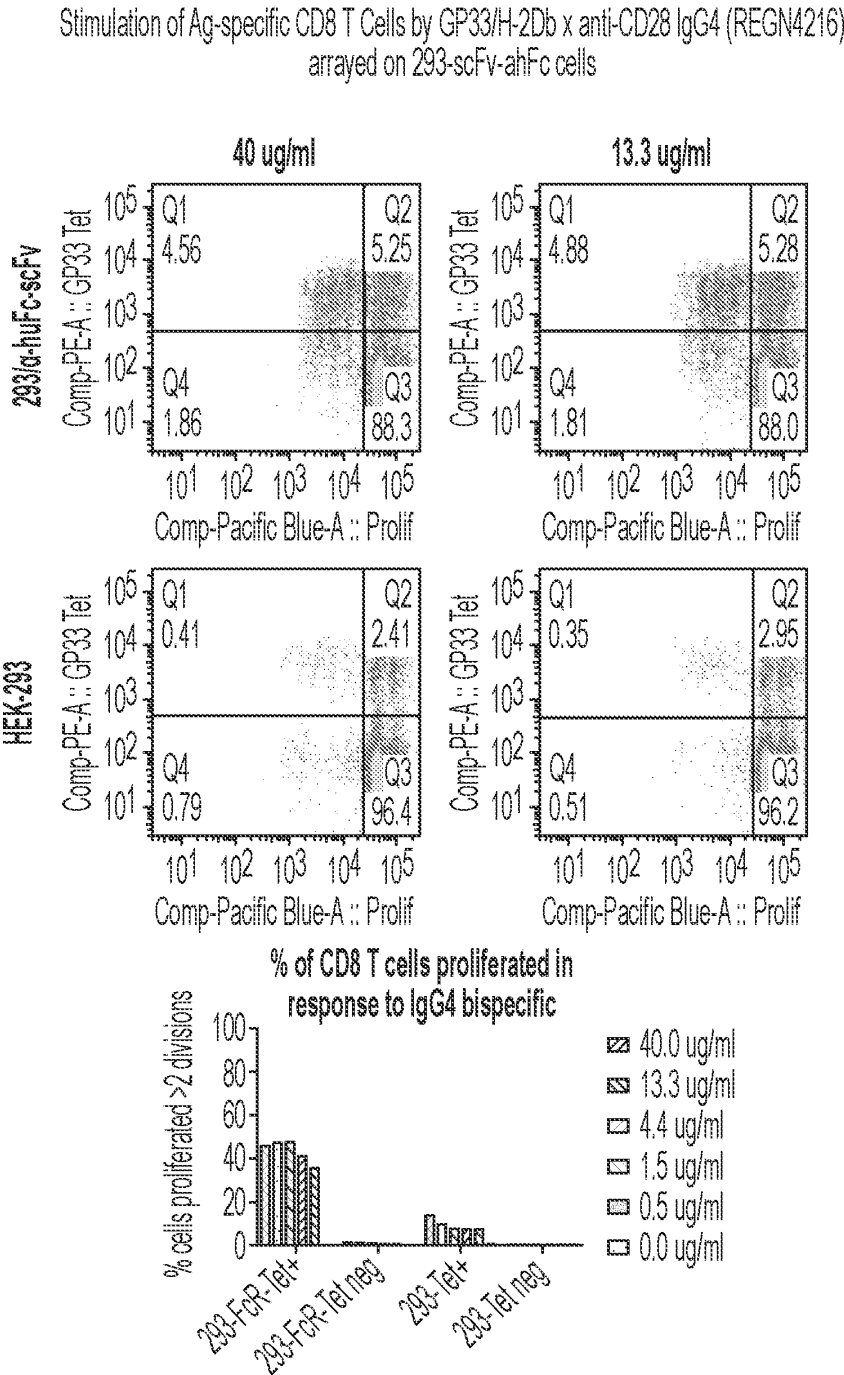


FIG. 7

12/29

Stimulation of Ag-specific CD8 T Cells by GP33/H-2Db x anti-CD28 IgG4 (REGN4216)
arrayed on 293-scFv-ahFc cells

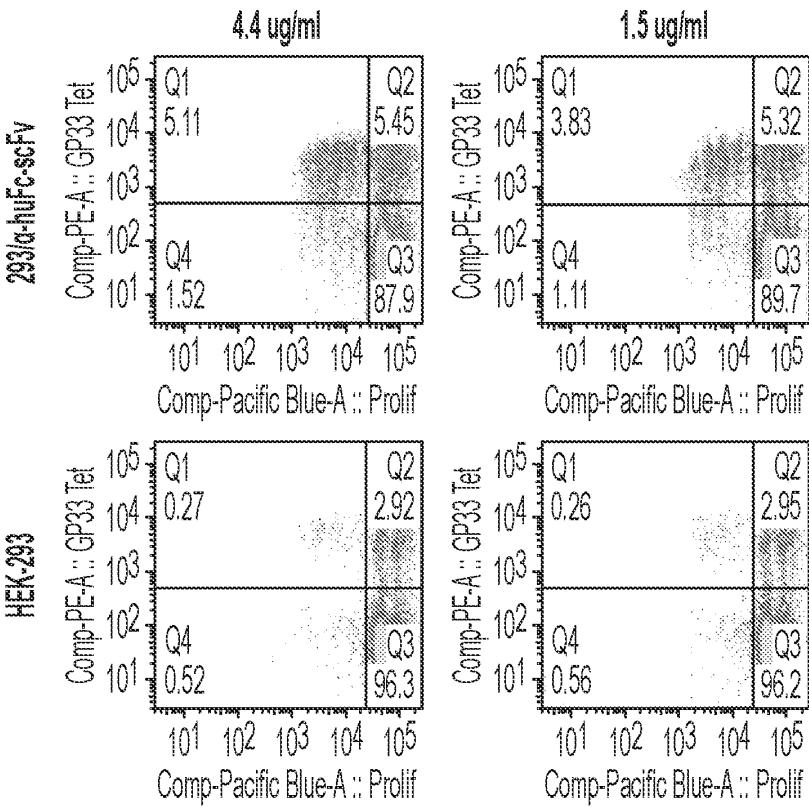


FIG. 7
CONTINUED

Stimulation of Ag-specific CD8 T Cells by GP33/H-2Db x anti-CD28 IgG4 (REGN4216)
arrayed on 293-scFv-ahFc cells

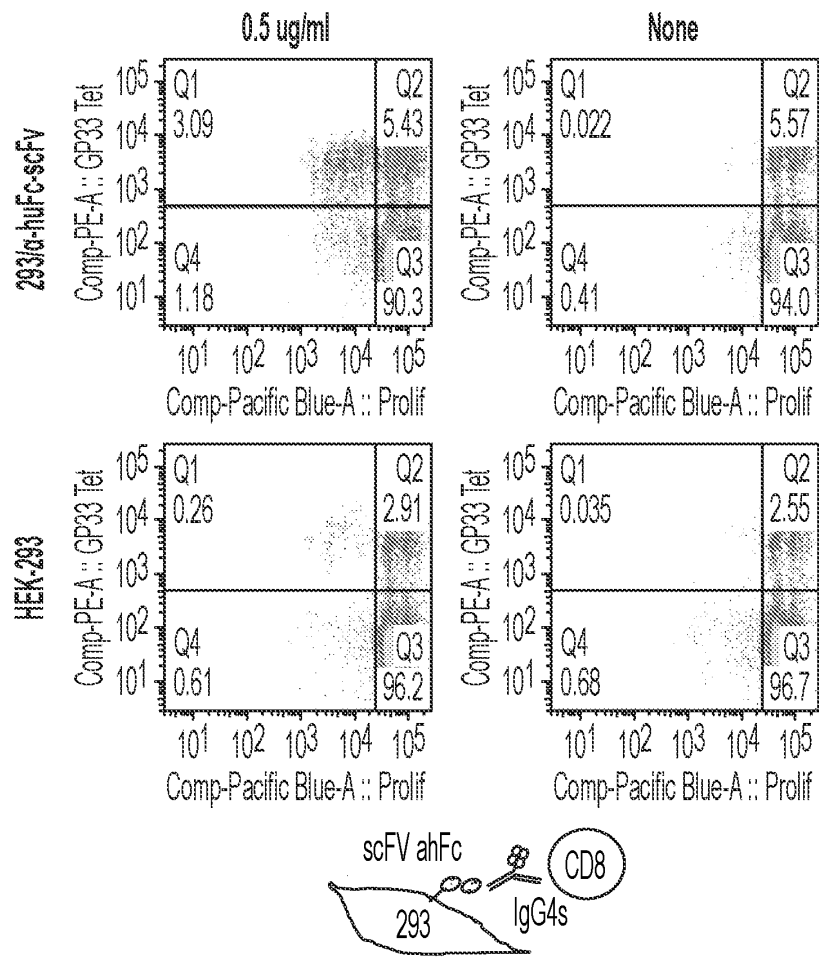


FIG. 7
CONTINUED

14/29

Ag-specific T cell stimulation by mCD20 Stahl body arrayed on primary B cells

Enriched B cells

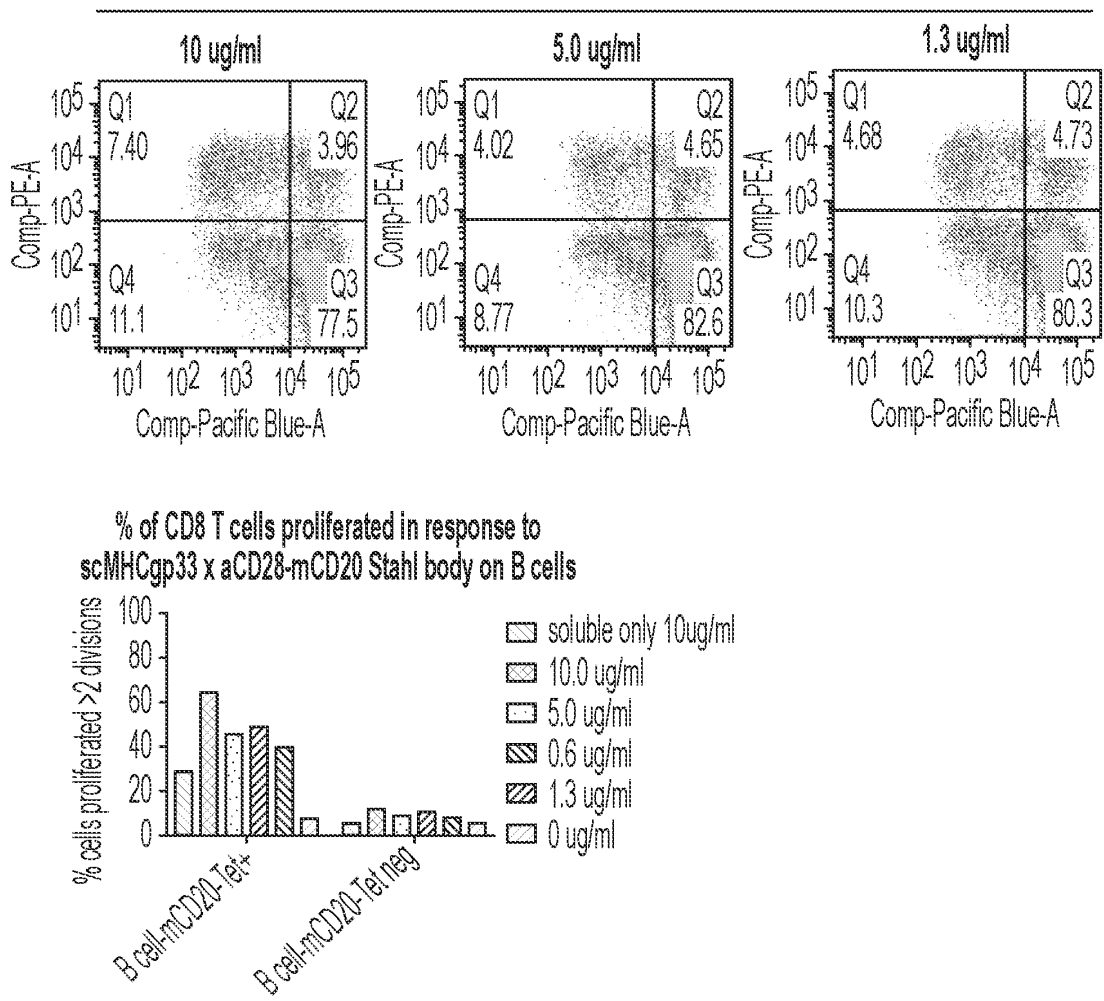


FIG. 8

Ag-specific T cell stimulation by mCD20 Stahl body arrayed on primary B cells

Enriched B cells

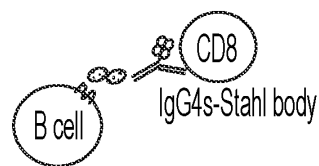
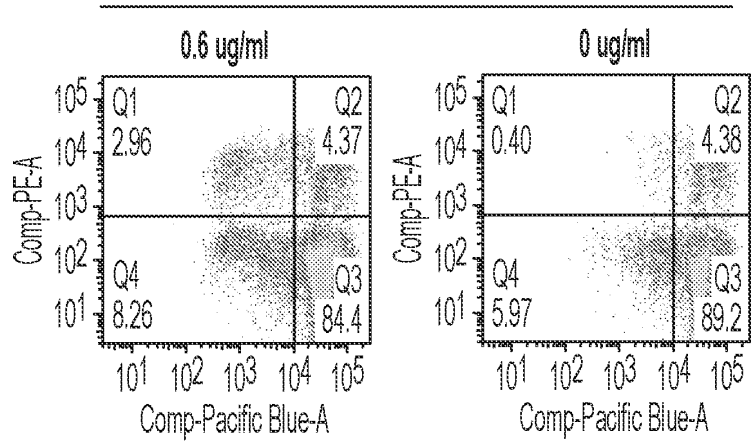


FIG. 8
CONTINUED

16/29

Arrayed Stahl body on B cells enhances Ag-specific T cell division compared to Negative controls

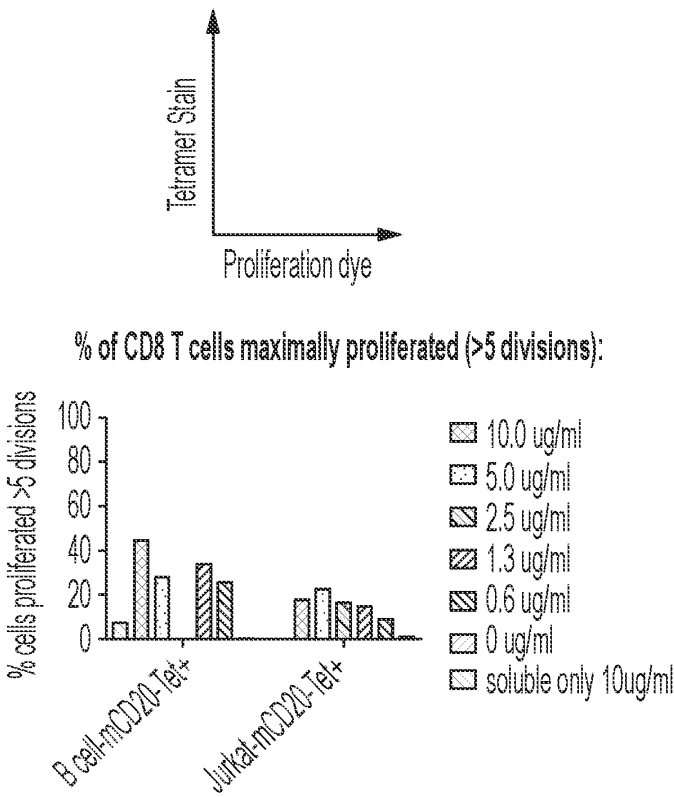


FIG. 9

Arraying Stahl body on B cells enhances Ag-specific T cell division compared to Negative controls

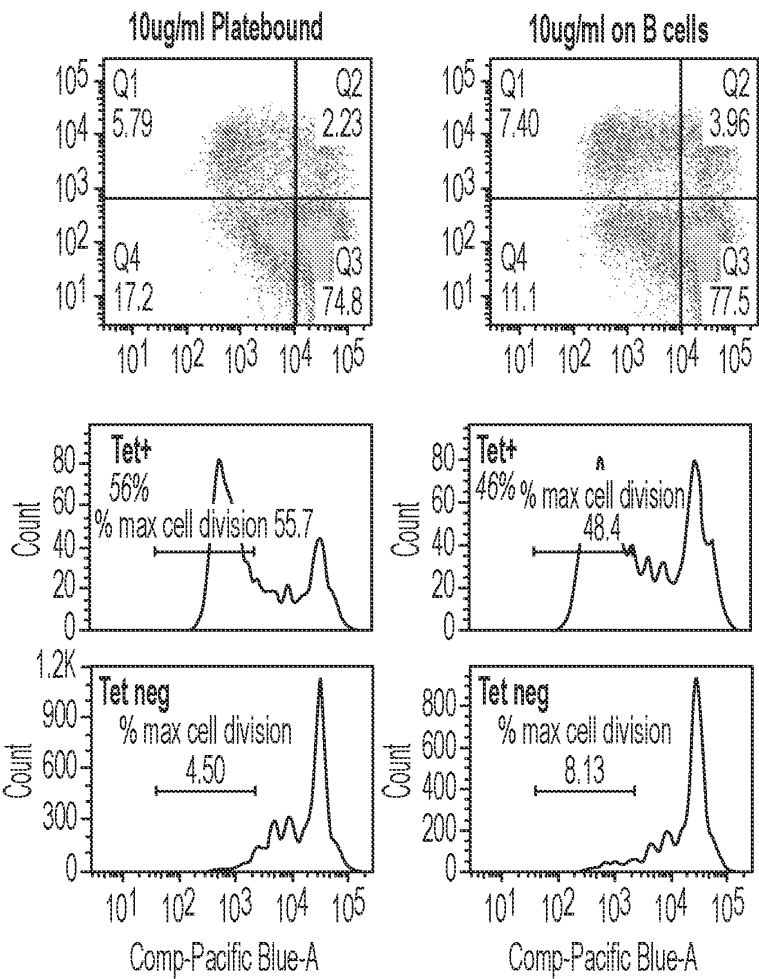


FIG. 9
CONTINUED

Arrayed Stahl body on B cells enhances Ag-specific T cell division compared to Negative controls

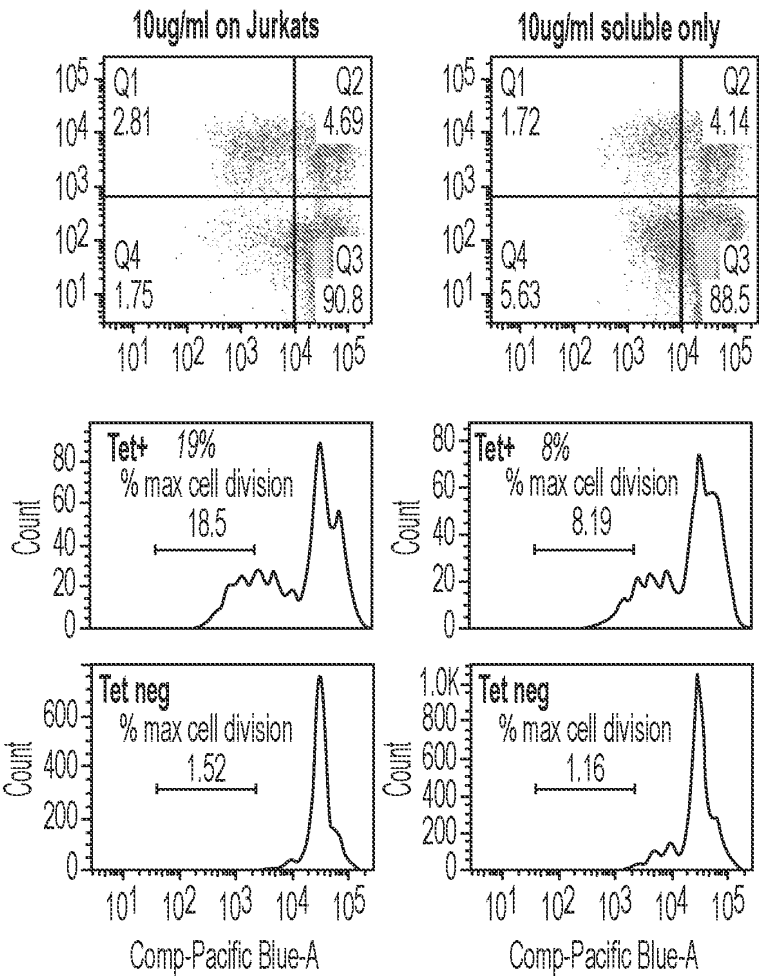
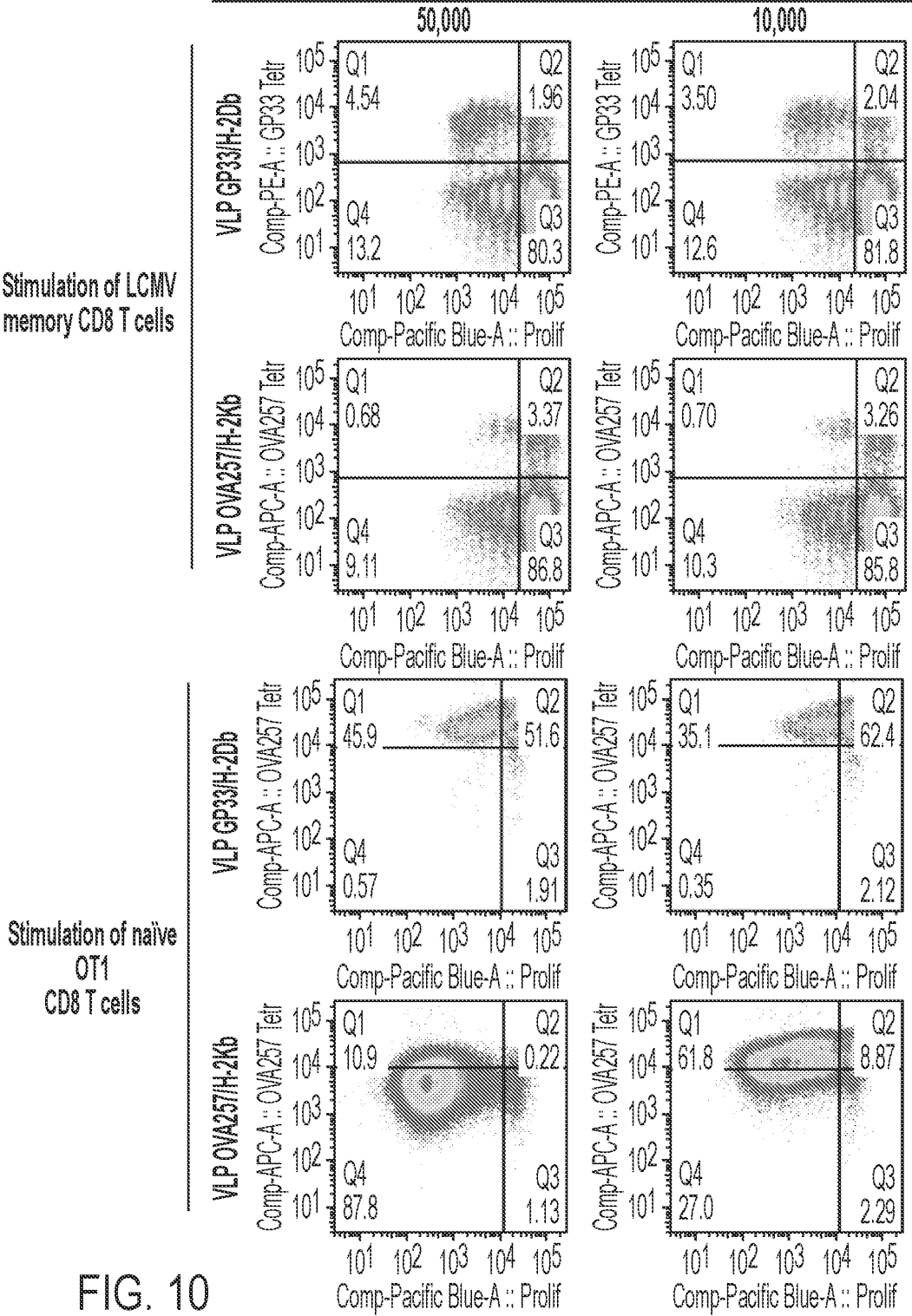


FIG. 9
CONTINUED

19/29

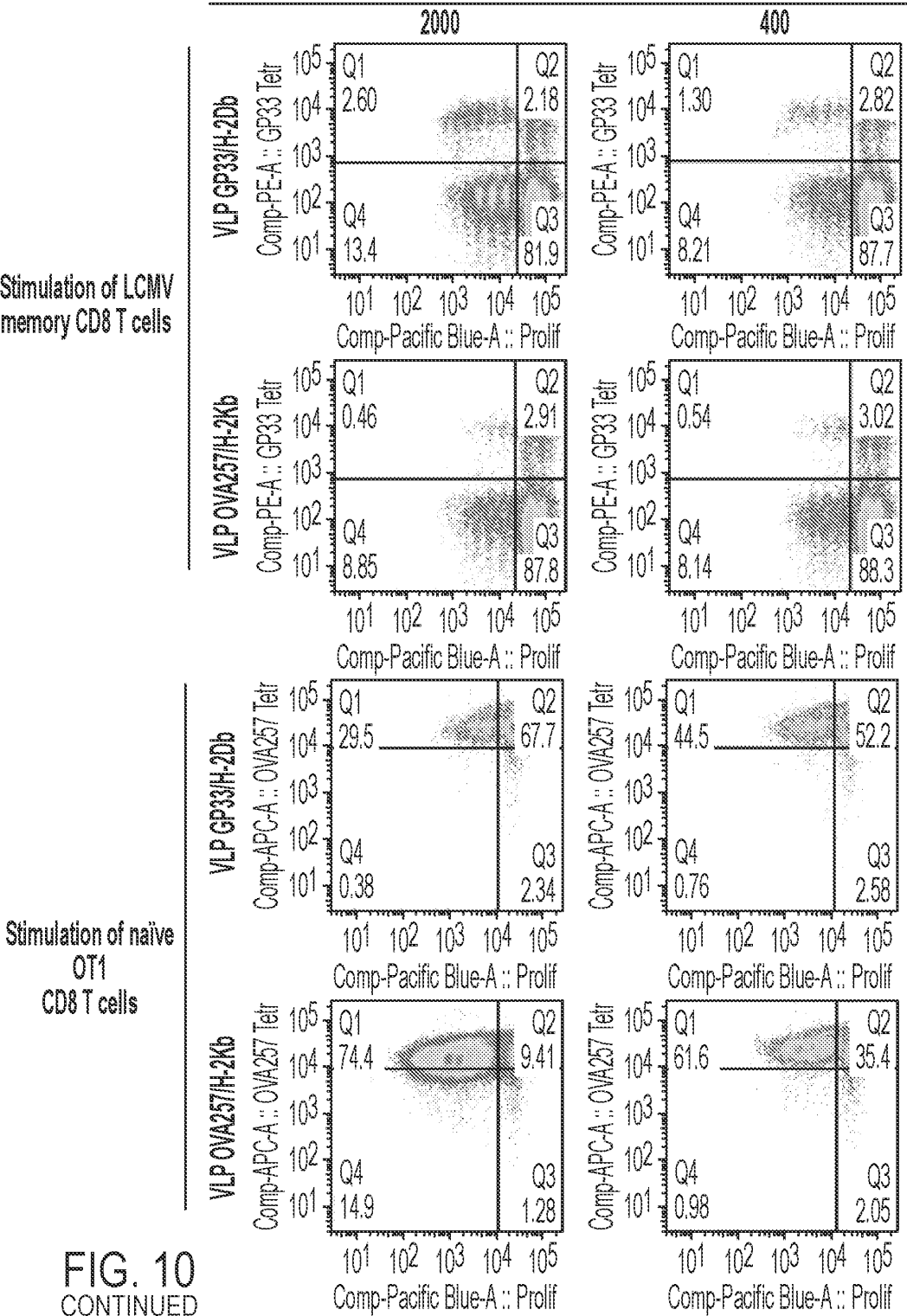
Virus Like Particles with scMHC/PEPTIDE and anti-CD28 Antibody on surface stimulate RESPECTIVE
Ag-specific T cell proliferation
Virus-like Particles Genomes/Cell



20/29

Virus Like Particles with scMHC/PEPTIDE and anti-CD28 Antibody on surface stimulate RESPECTIVE
Ag-specific T cell proliferation

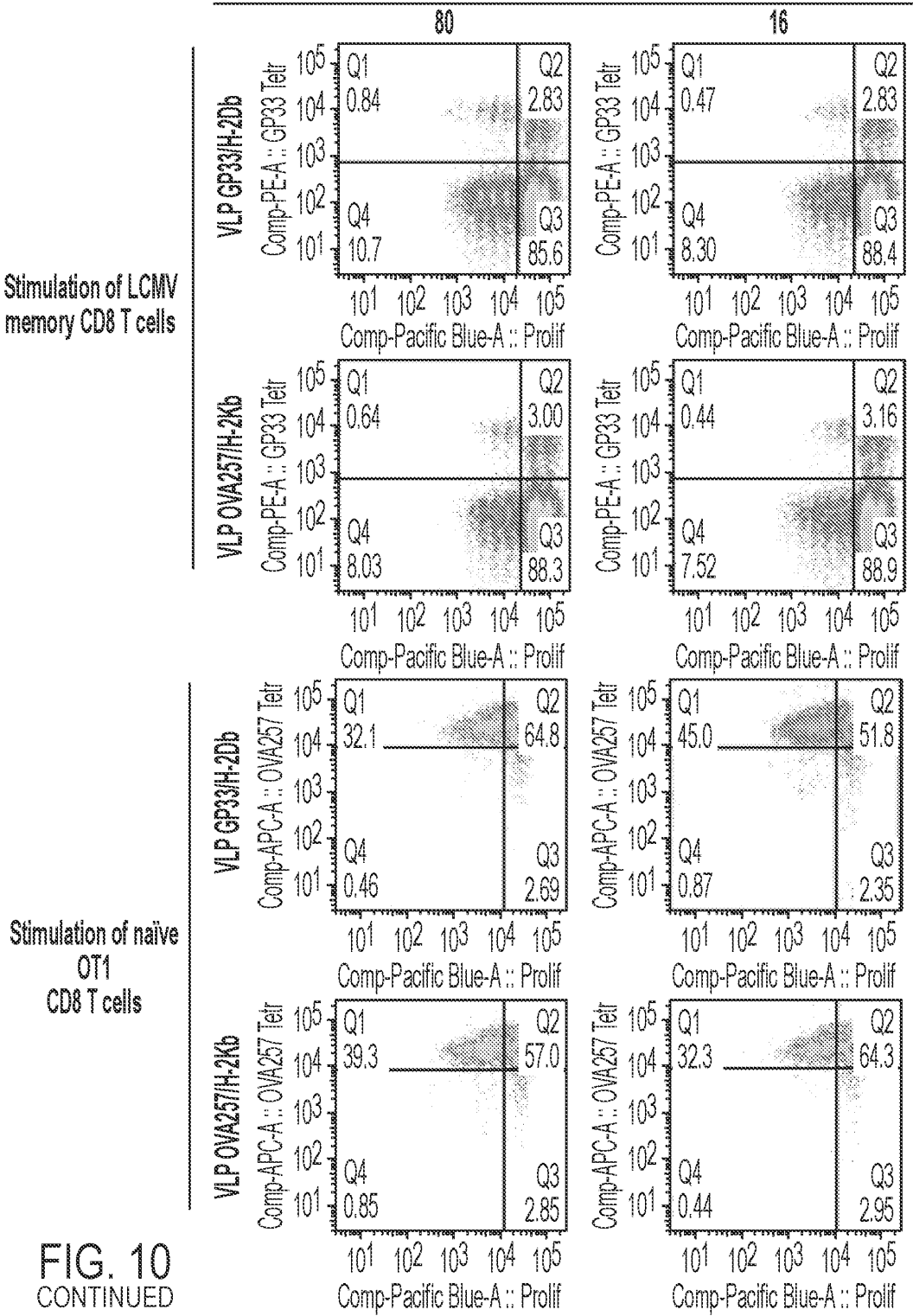
Virus-like Particles Genomes/Cell



21/29

Virus Like Particles with scMHC/PEPTIDE and anti-CD28 Antibody on surface stimulate RESPECTIVE
Ag-specific T cell proliferation

Virus-like Particles Genomes/Cell



22/29

Virus Like Particles with scMHC/PEPTIDE and anti-CD28 Antibody on surface stimulate RESPECTIVE
Ag-specific T cell proliferation
Virus-like Particles Genomes/Cell

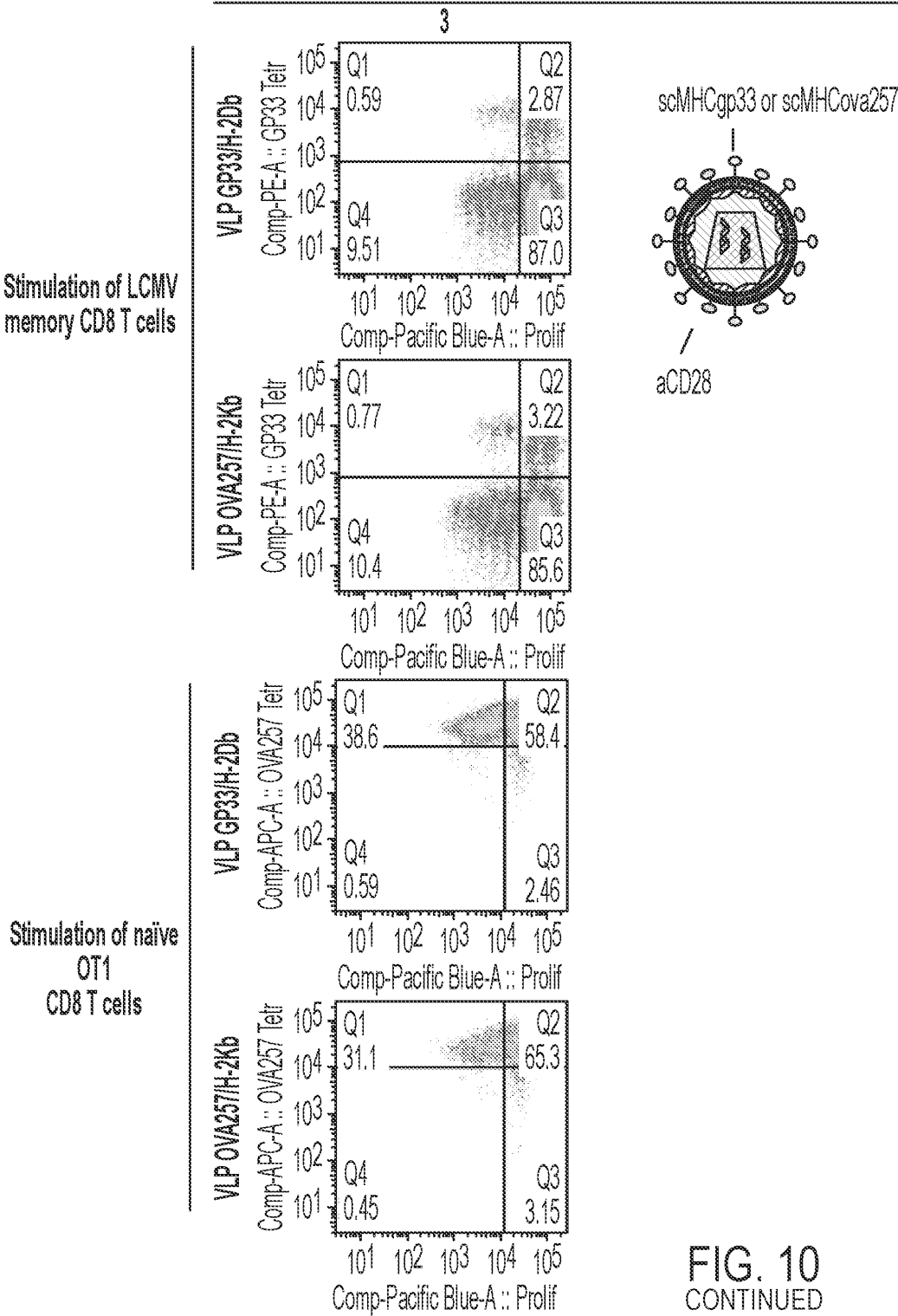


FIG. 10
CONTINUED

23/29

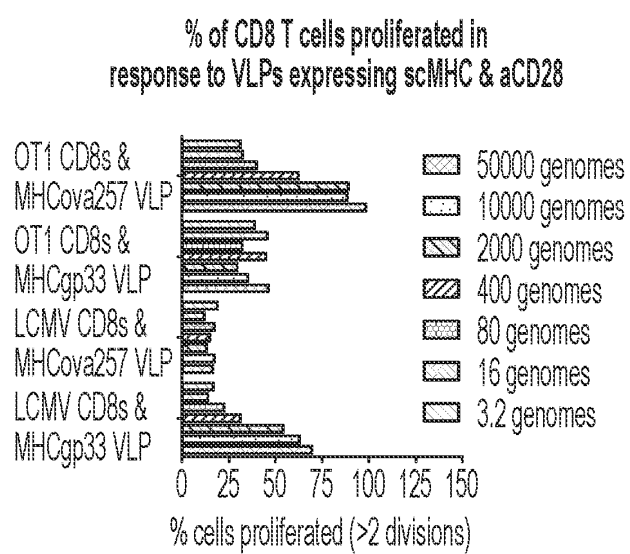


FIG. 10
CONTINUED

Stimulation of LCMV memory CD8 T cells with activated primary B cells transduced with scMHCgp33 vs controls

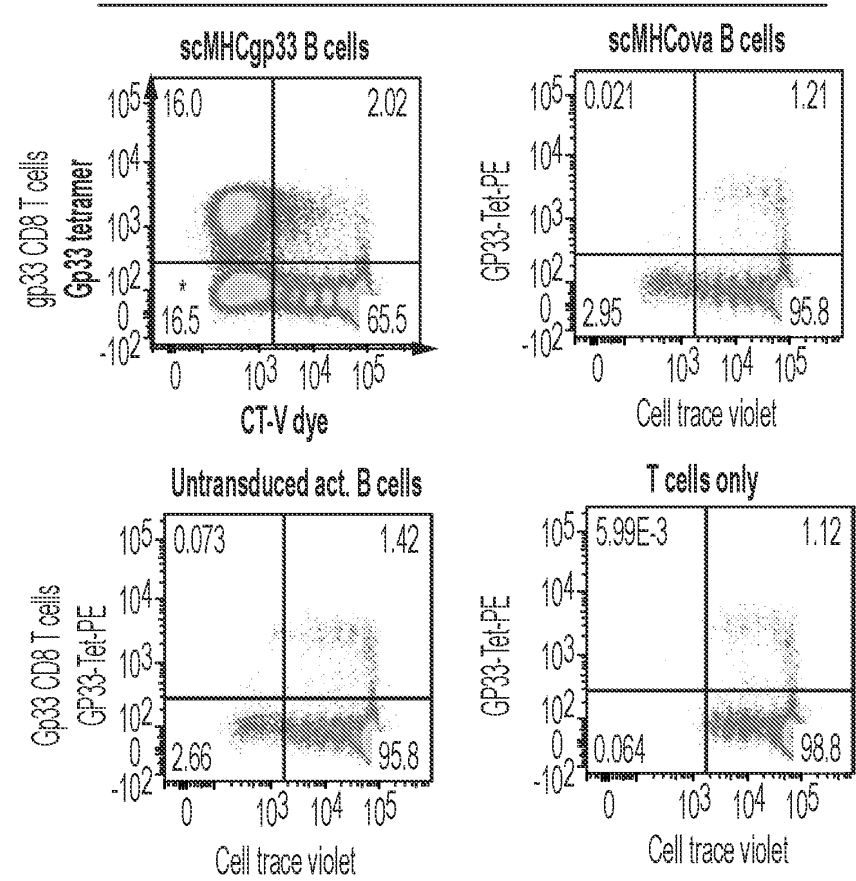


FIG. 11A

Thy1.2+ OT1 cells mixed with irrelevant Thy1.1+ CD8 T cells at 1:3 ratio and stimulated with activated primary B cells transduced with scMHCova vs controls

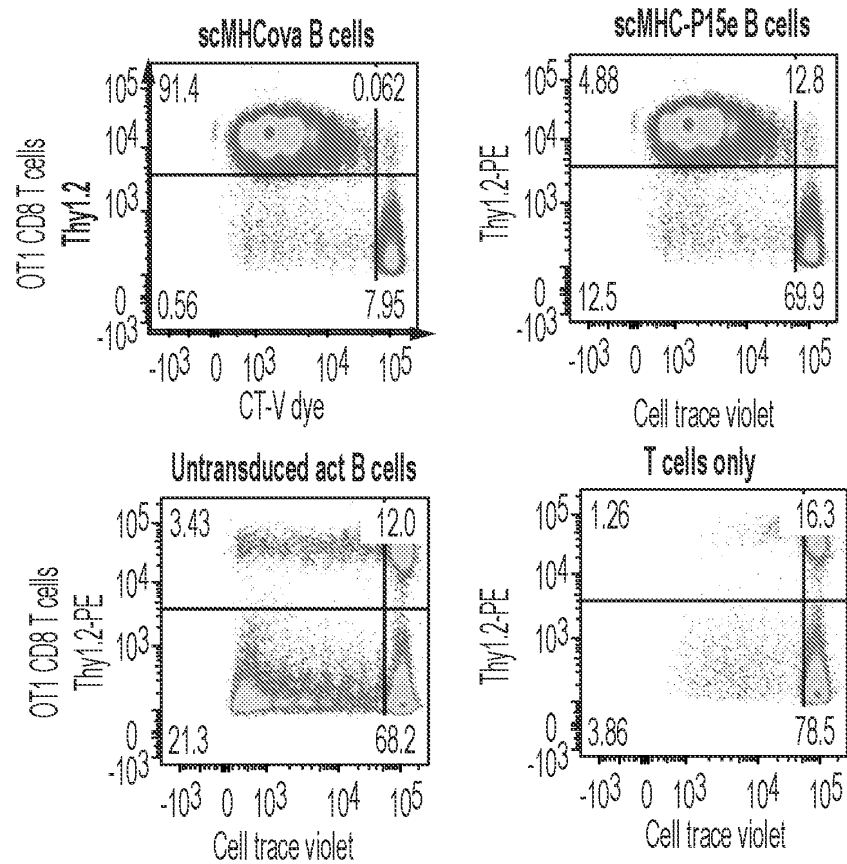


FIG. 11B

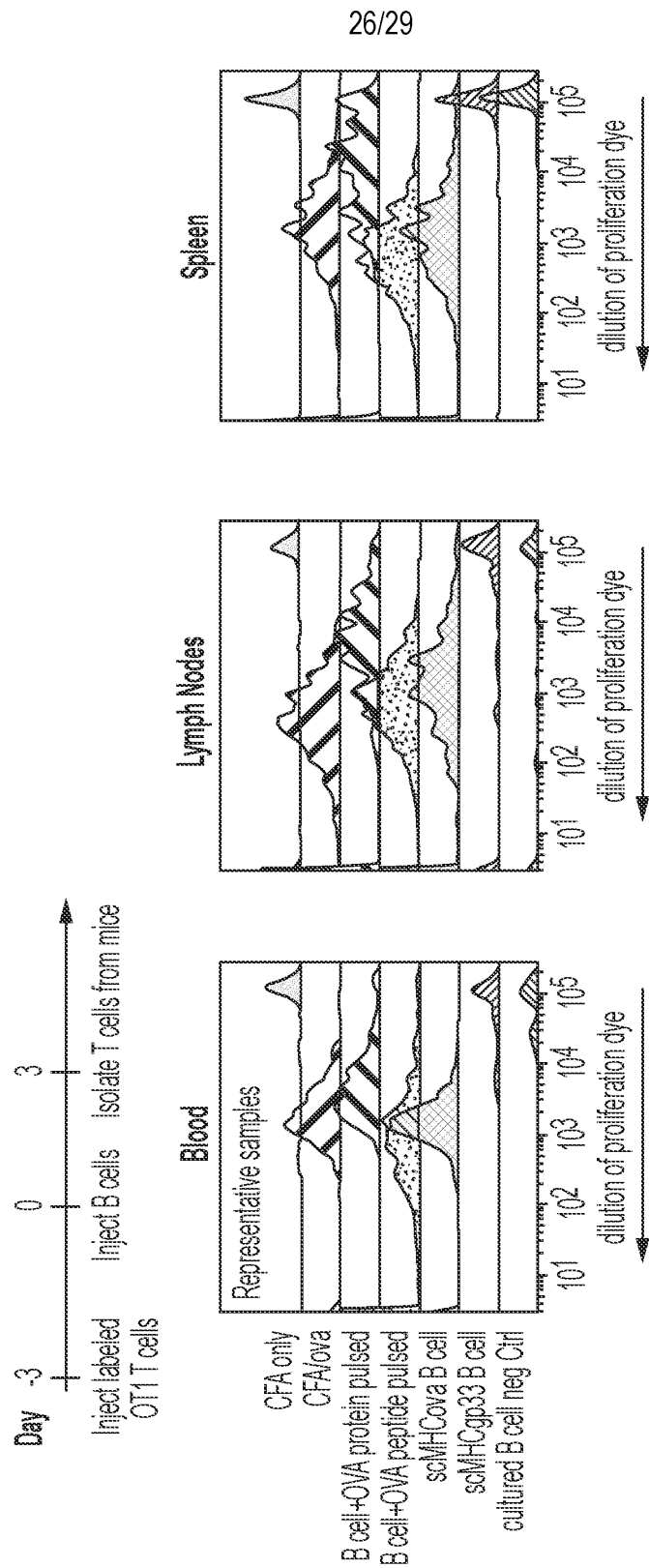


FIG. 12

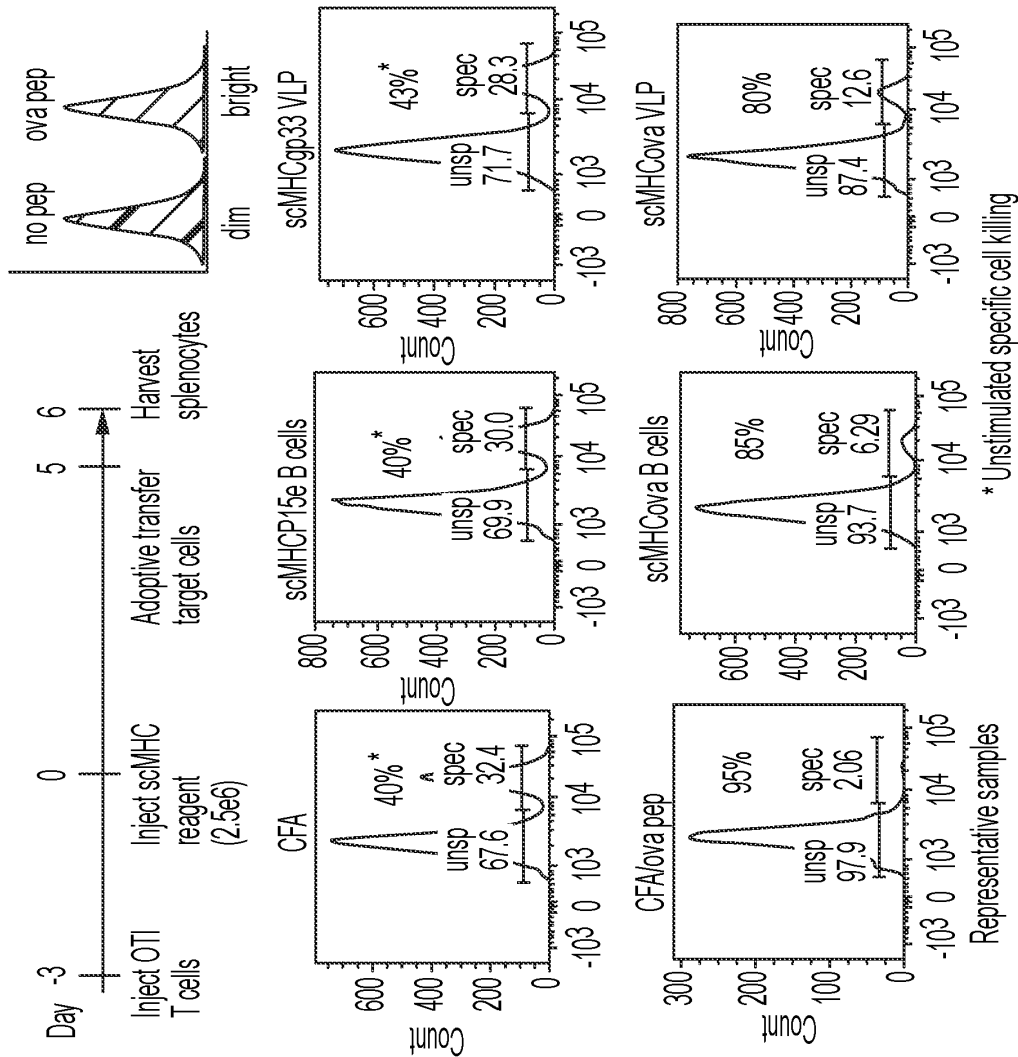
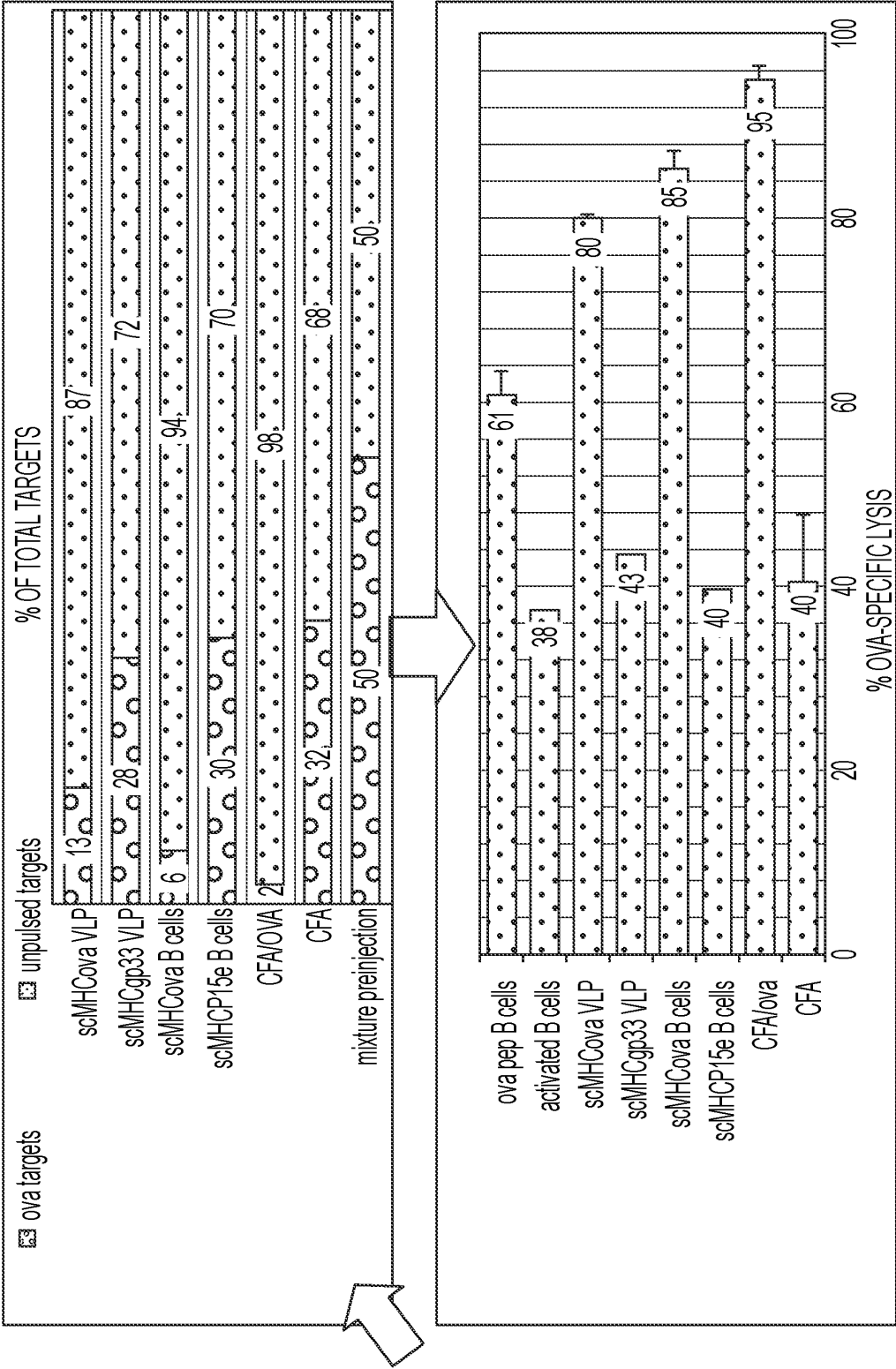


FIG. 13



Enhanced lysis of targets when OTI cells are activated with either ova peptide pulsed B cells, scMHCova VLP, scMHCova B cells, or CFA/ova

FIG. 13
CONTINUED

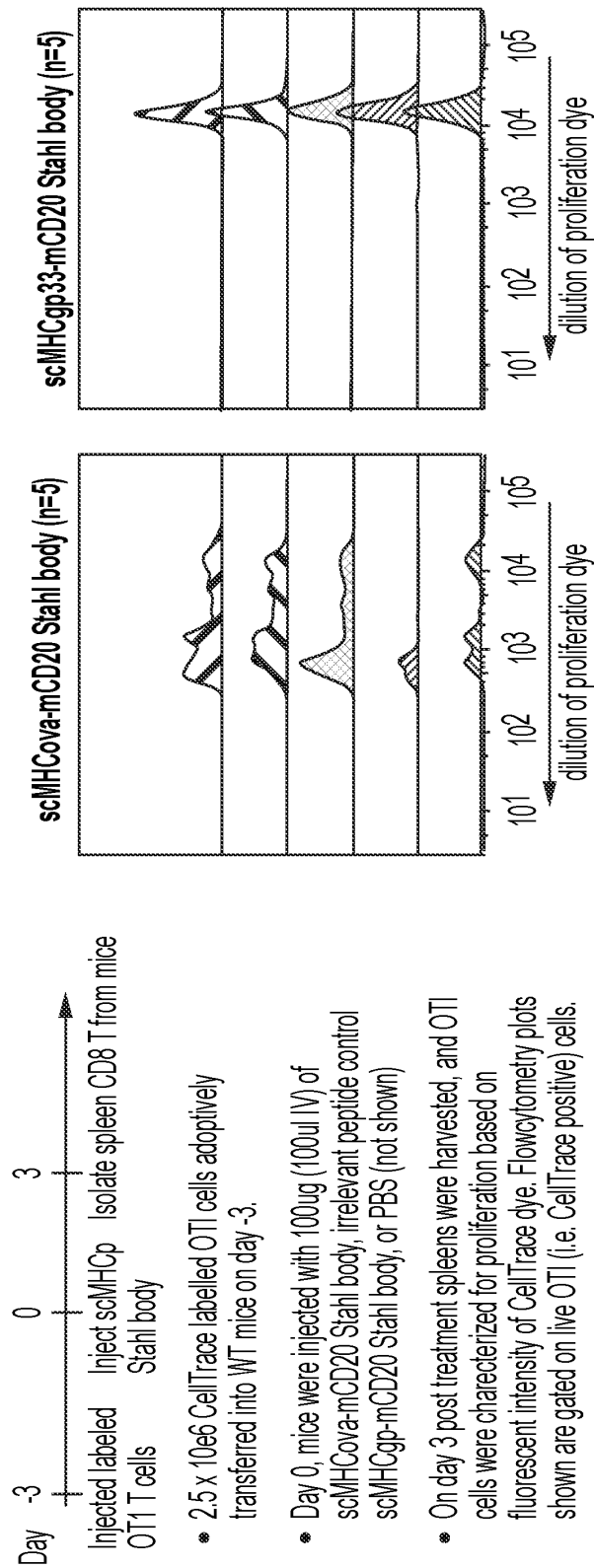


FIG. 14