

FIG. 1B

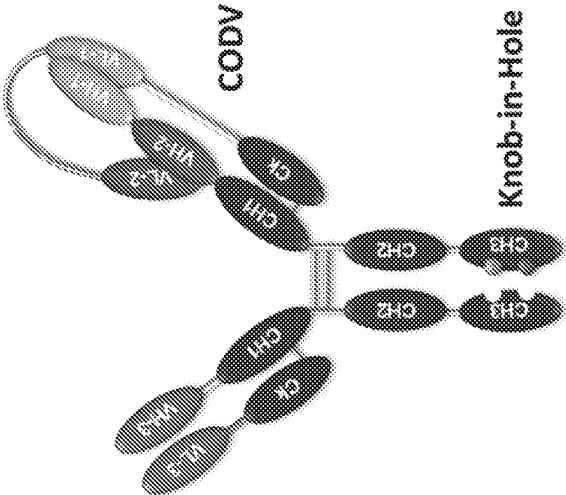


FIG. 1A

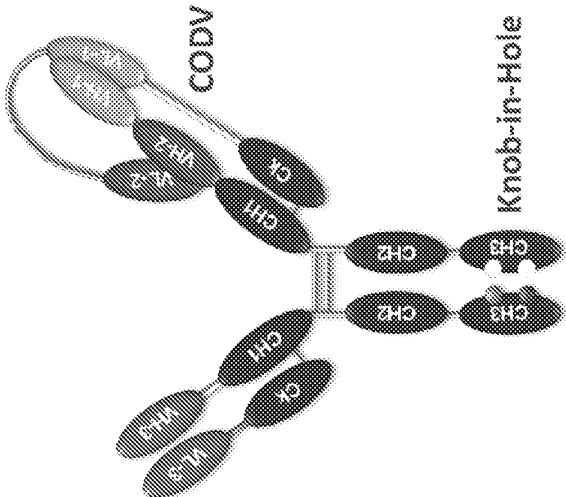


FIG. 1C

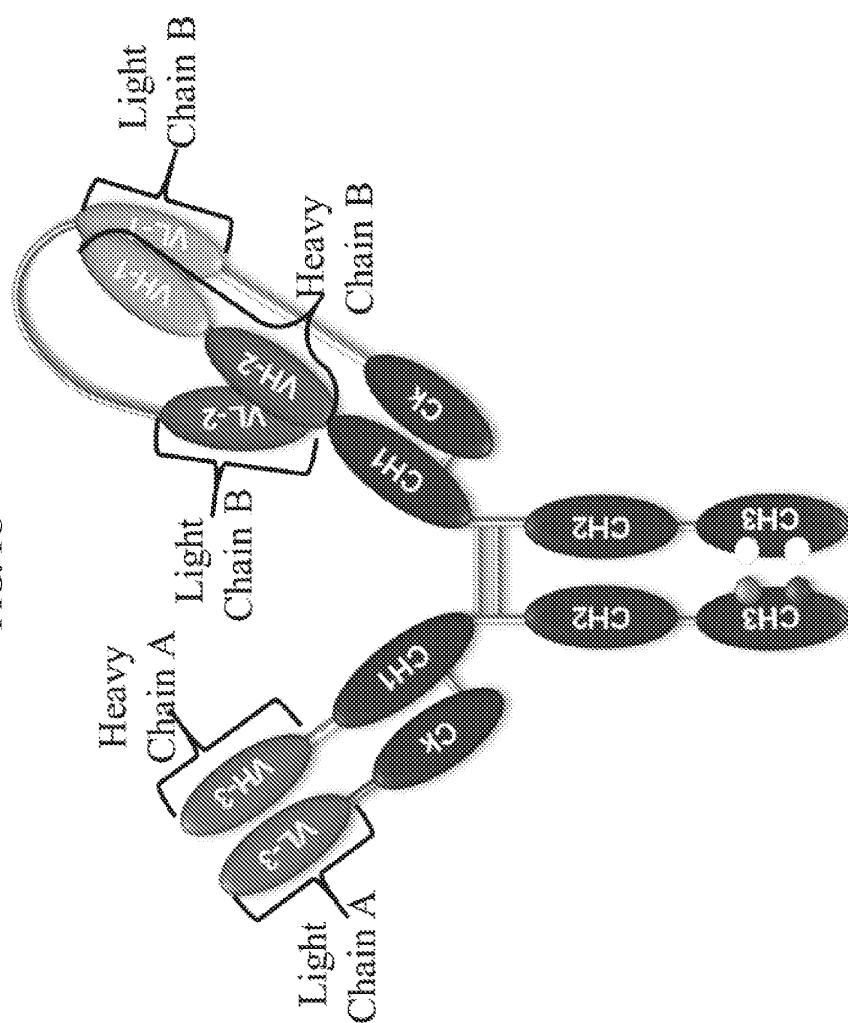


FIG. 2

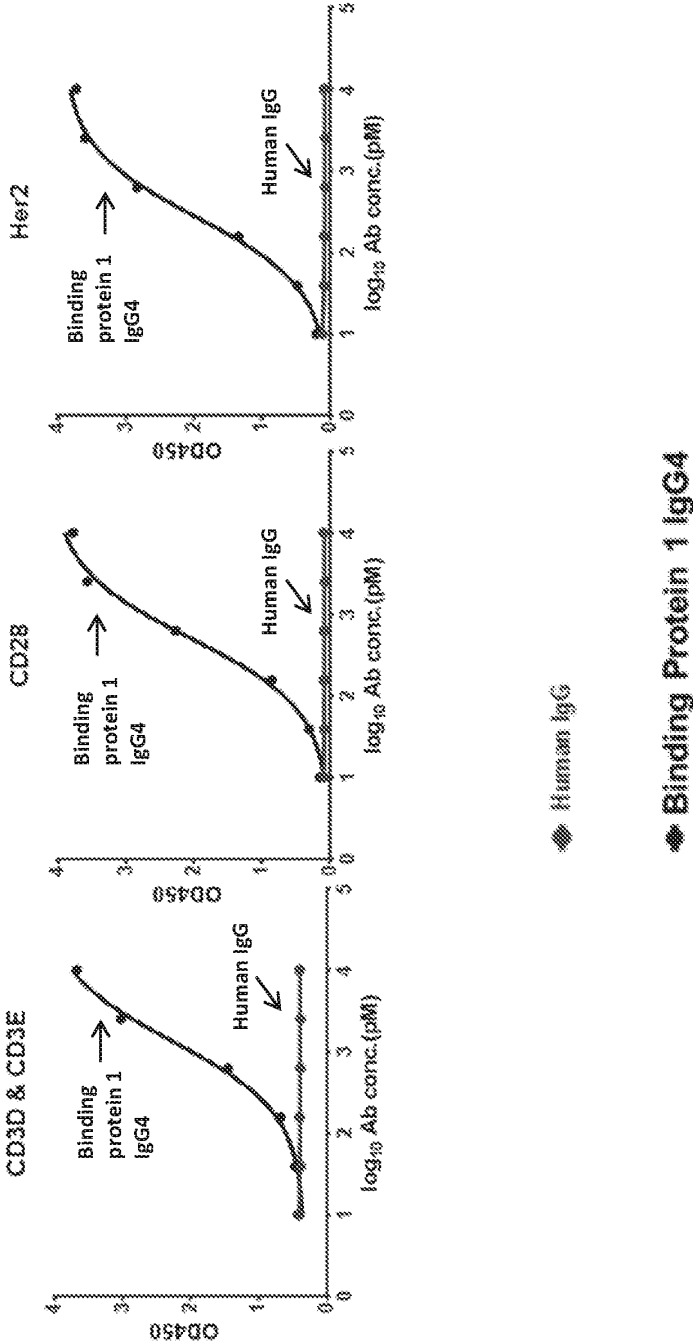


FIG. 3A

ZR-75-1

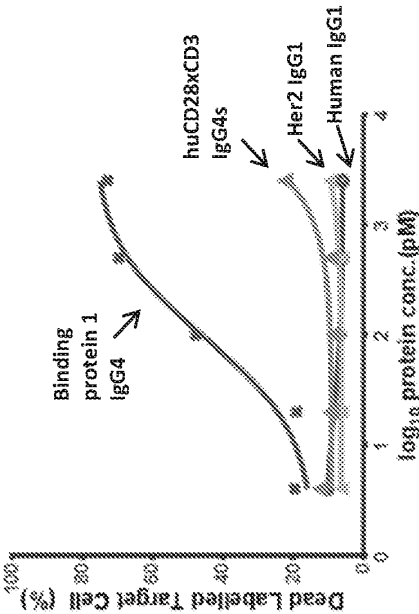
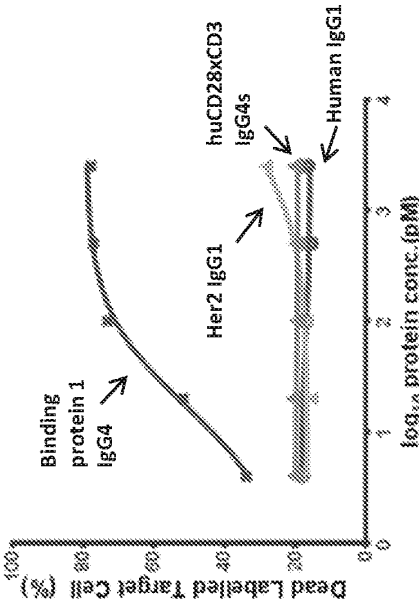


FIG. 3B

AU565



- huCD28 x CD3 IgG4s
- Binding Protein 1 IgG4
- Her2 IgG1
- human IgG1

FIG. 3C

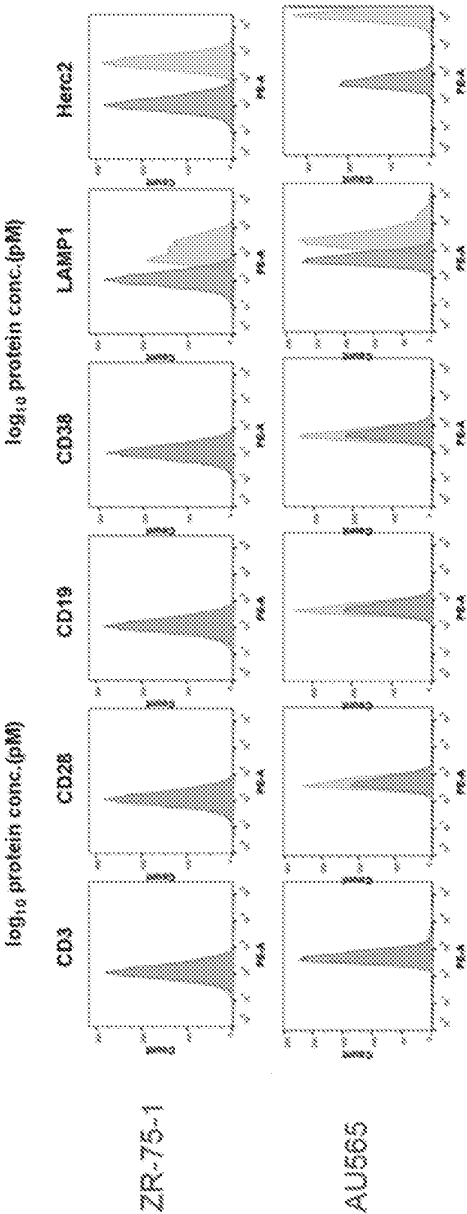


FIG. 4
ZR-75-1/CD28xCD3
Donor KP45926

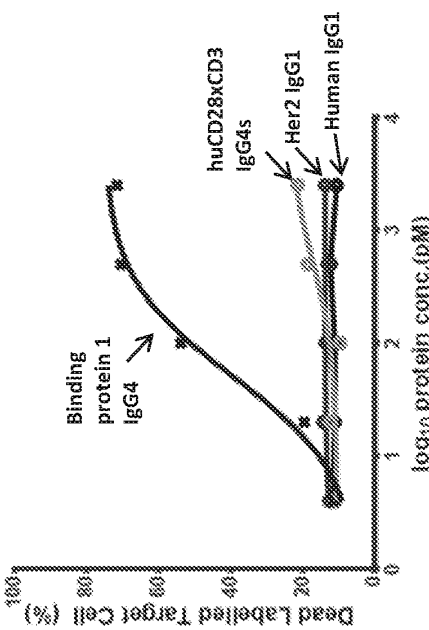
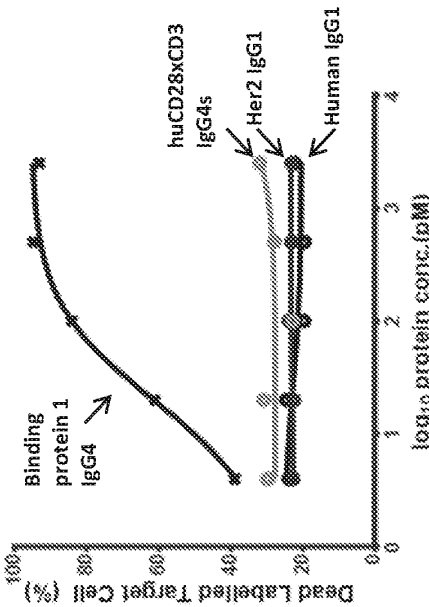


FIG. 5
AU565/CD28xCD3
Donor KP45944



- huCD28 x CD3 IgG4s
- Binding Protein 1 IgG4
- Her2 IgG1
- human IgG1

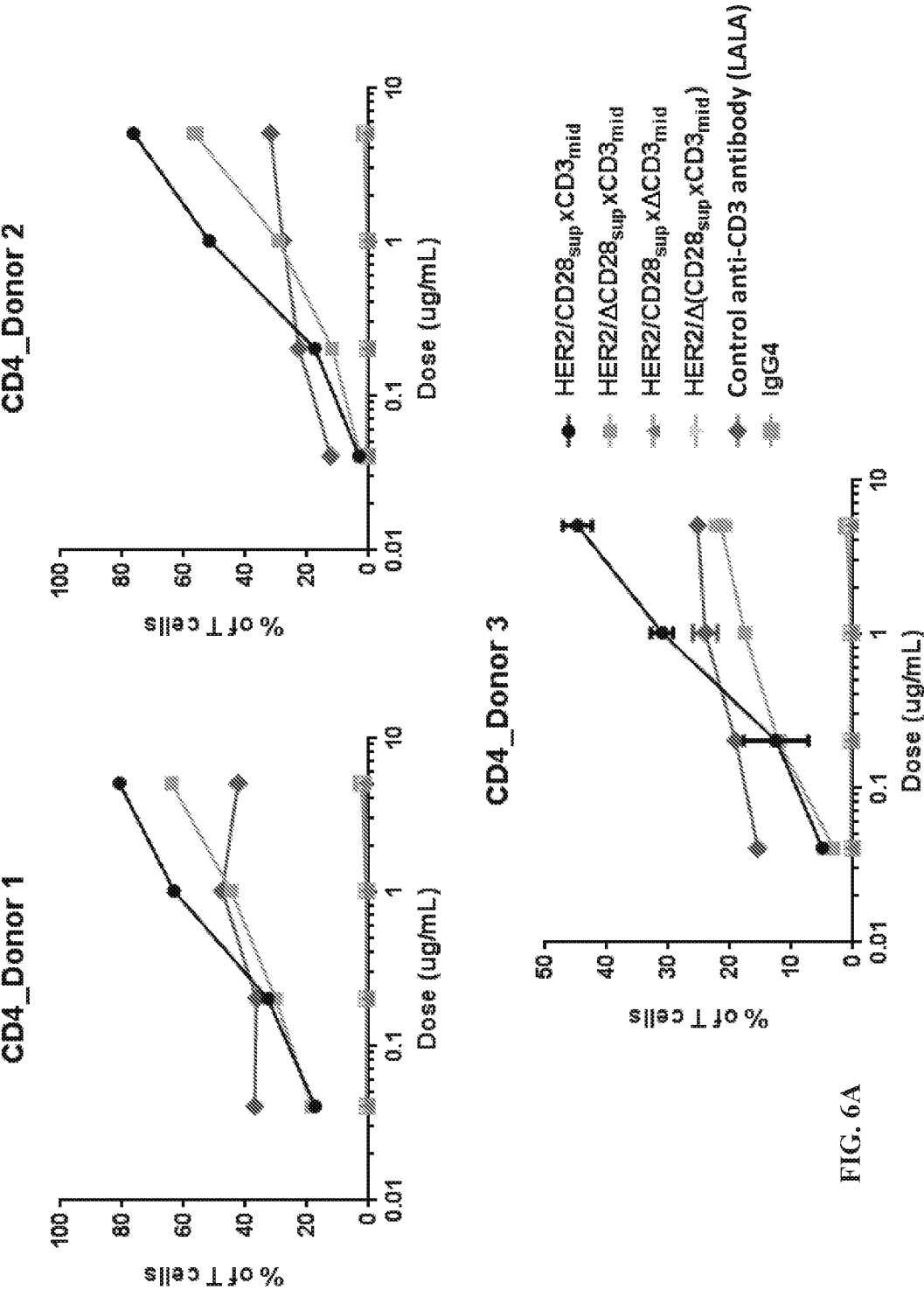


FIG. 6A

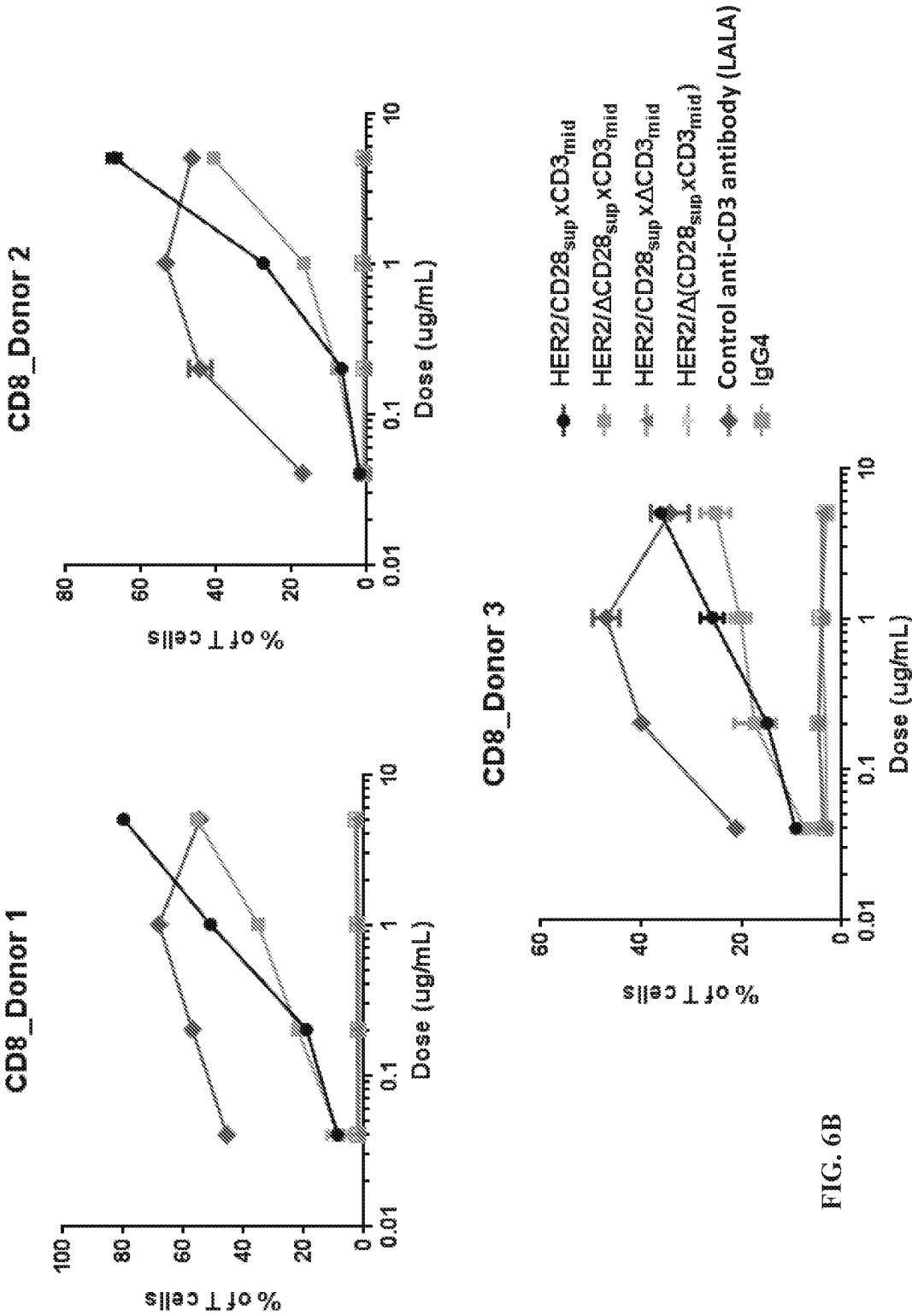


FIG. 6B

FIG. 7B

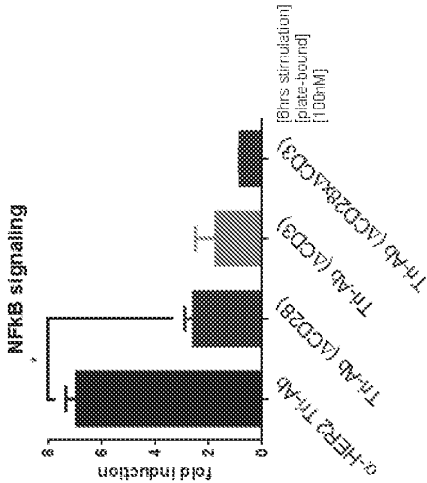


FIG. 7A

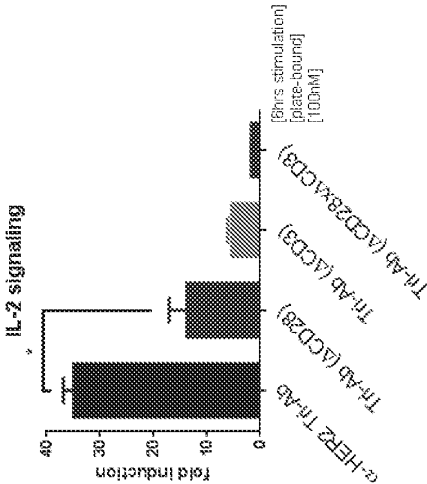


FIG. 7C

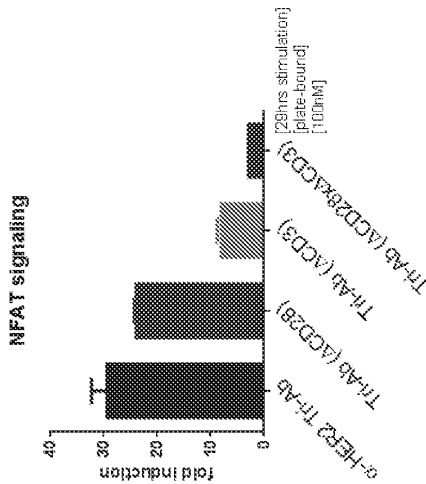


FIG. 8

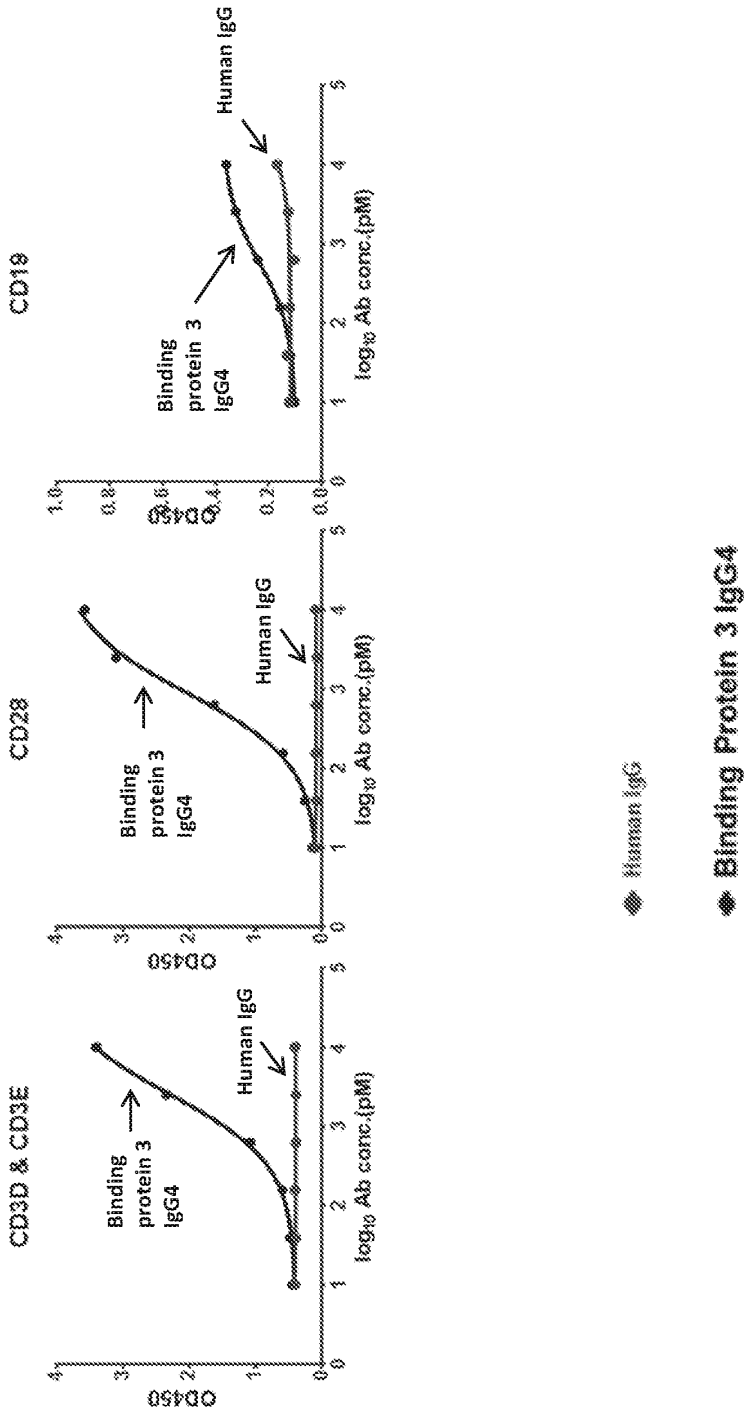


FIG. 9A

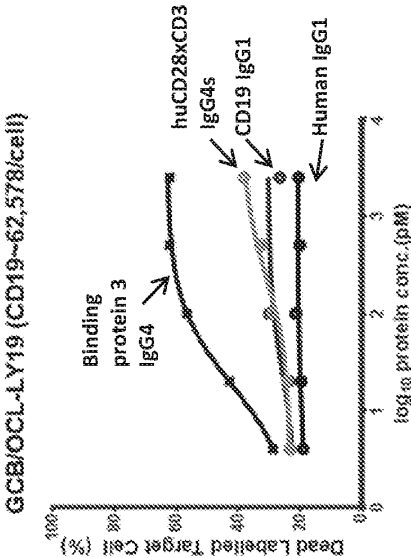


FIG. 9B

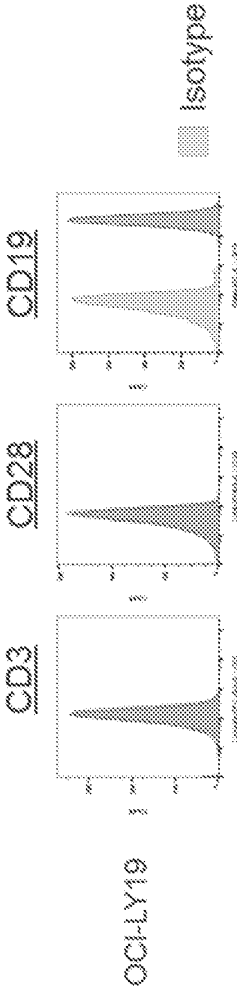


FIG. 9C

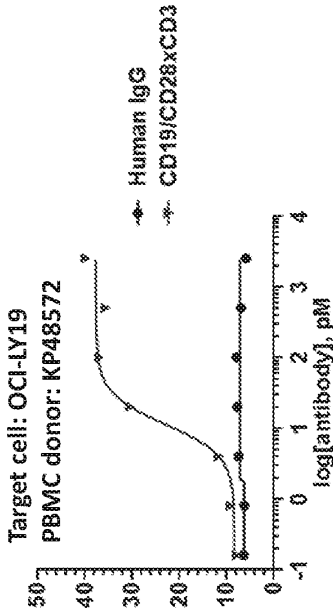


FIG. 9D

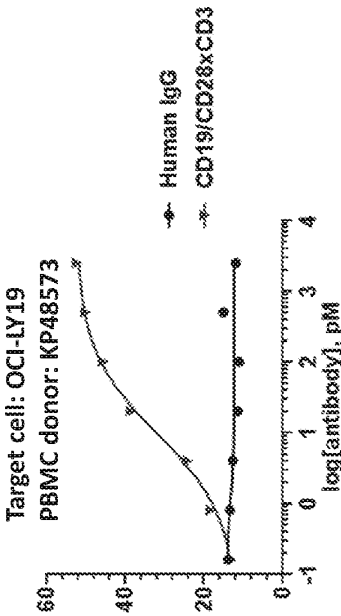


FIG. 9E

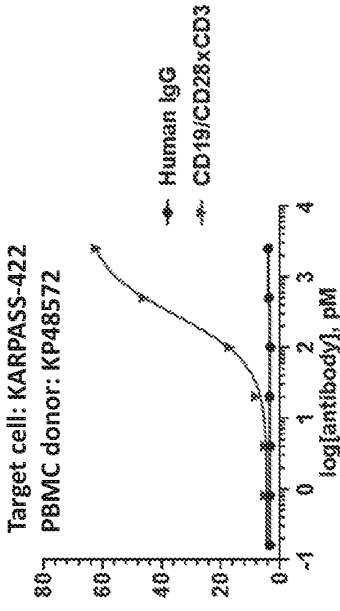


FIG. 9F

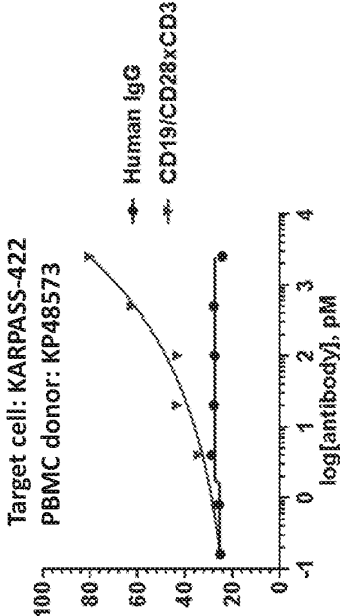


FIG. 9G

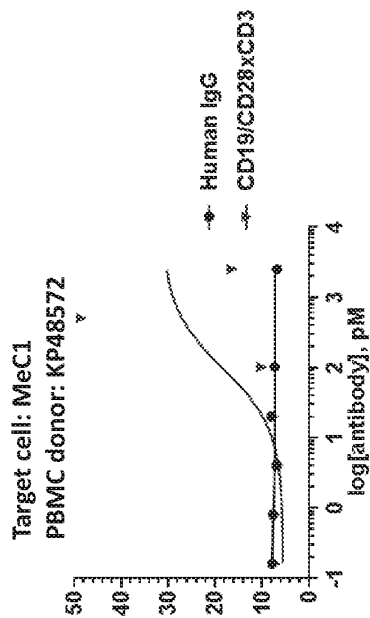


FIG. 9H

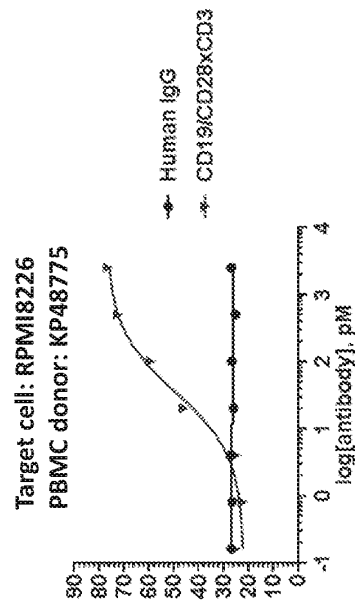


FIG. 9I

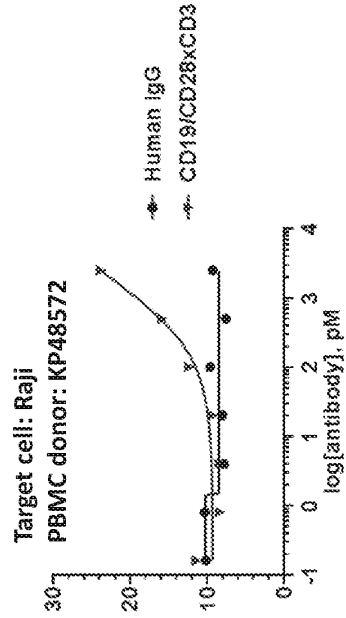


FIG. 9J

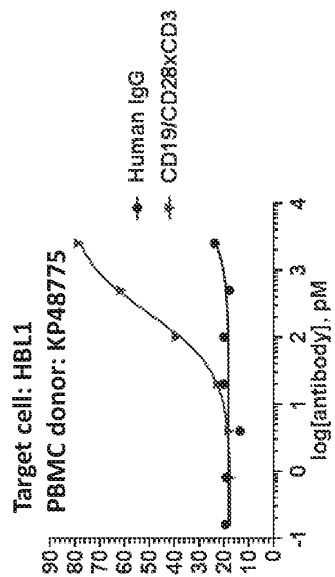


FIG. 9L

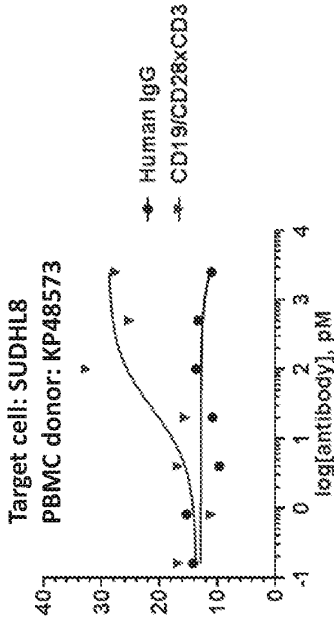


FIG. 9N

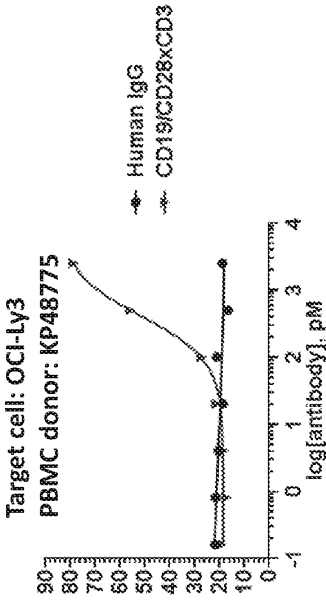


FIG. 9K

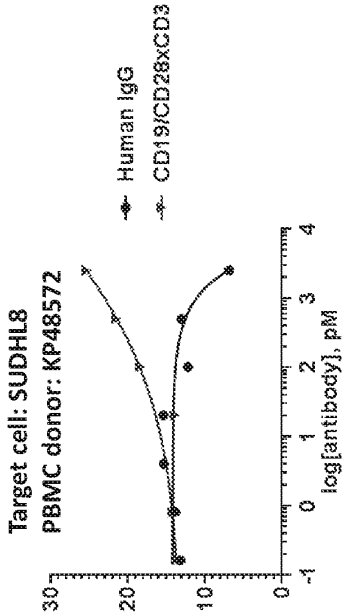


FIG. 9M

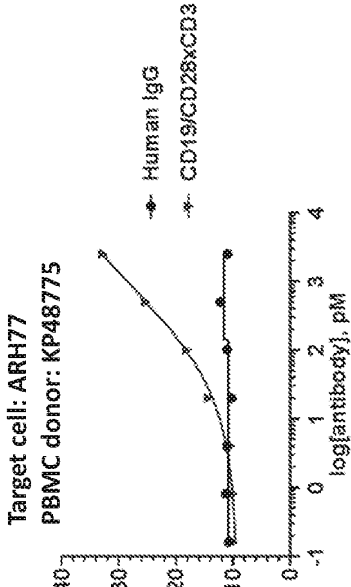


FIG. 10

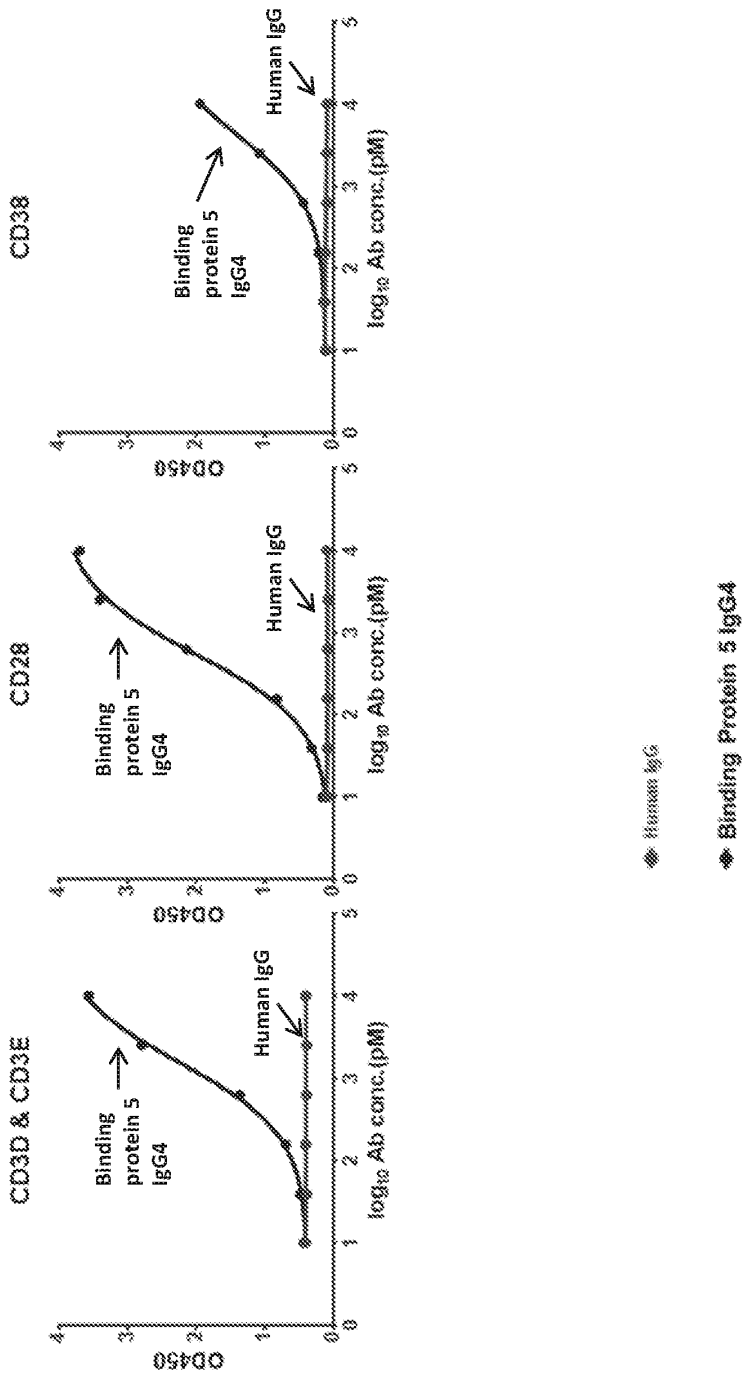


FIG. 11B

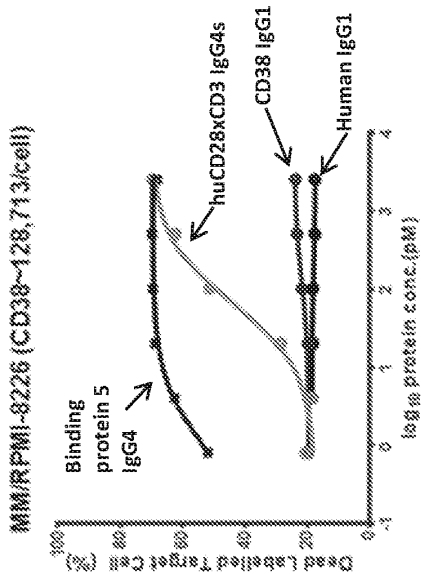


FIG. 11A

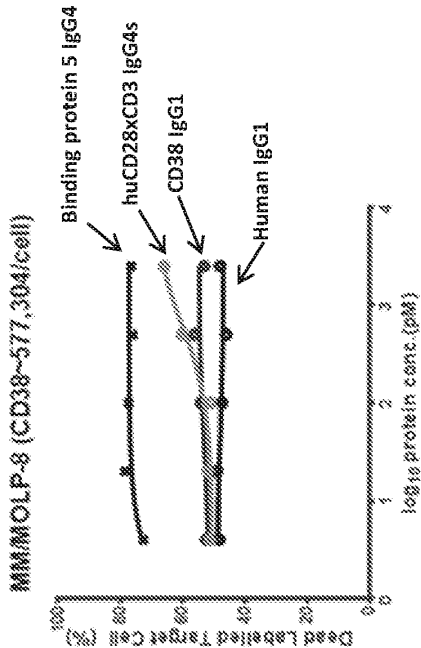


FIG. 11C

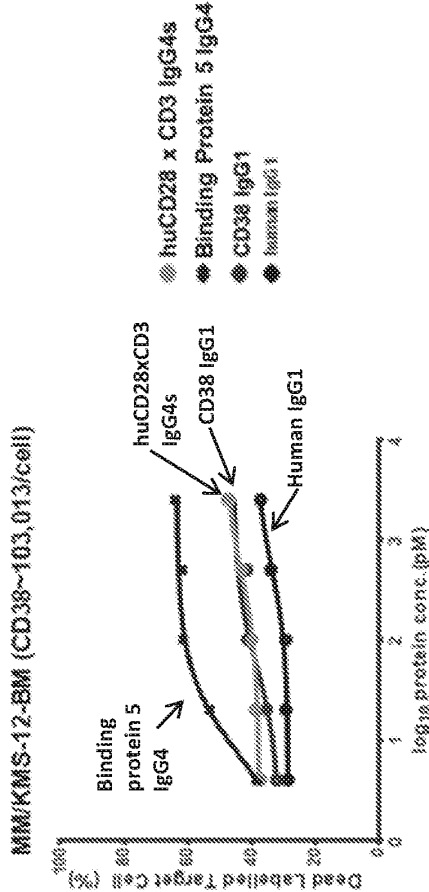


FIG. 11D

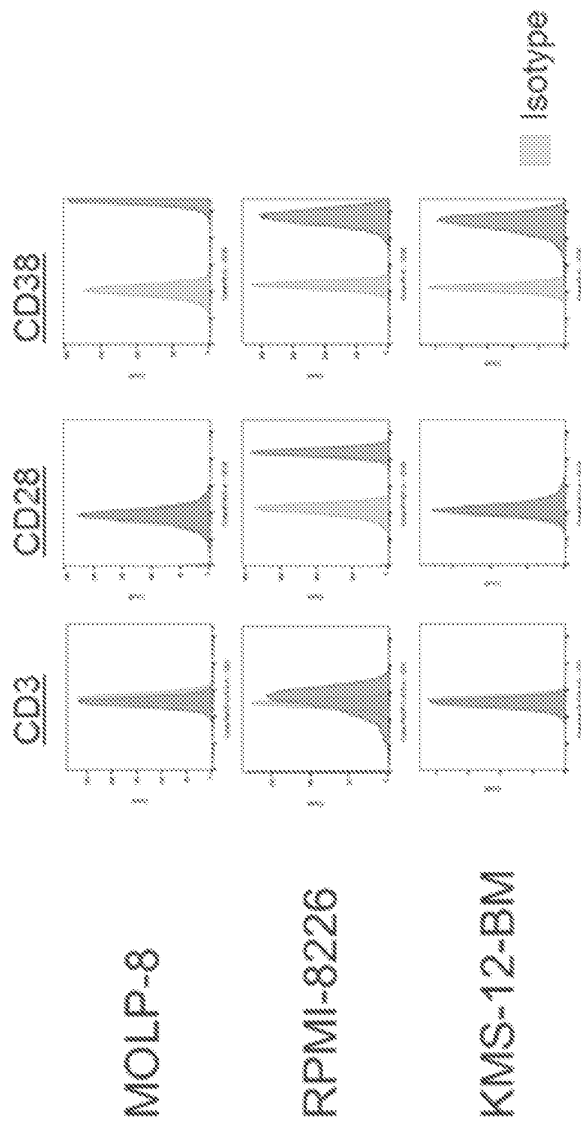


FIG. 12A

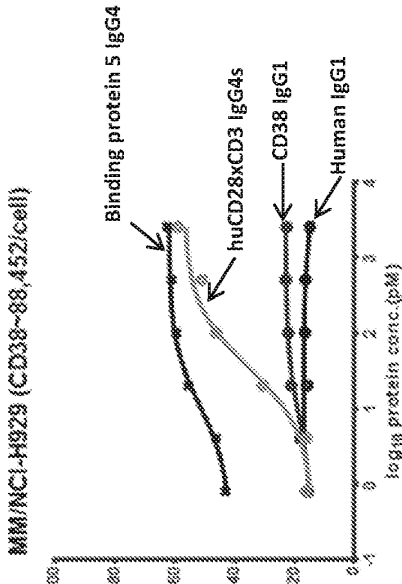


FIG. 12B

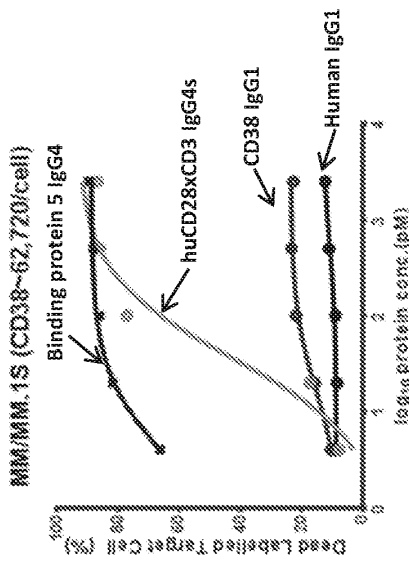


FIG. 12C

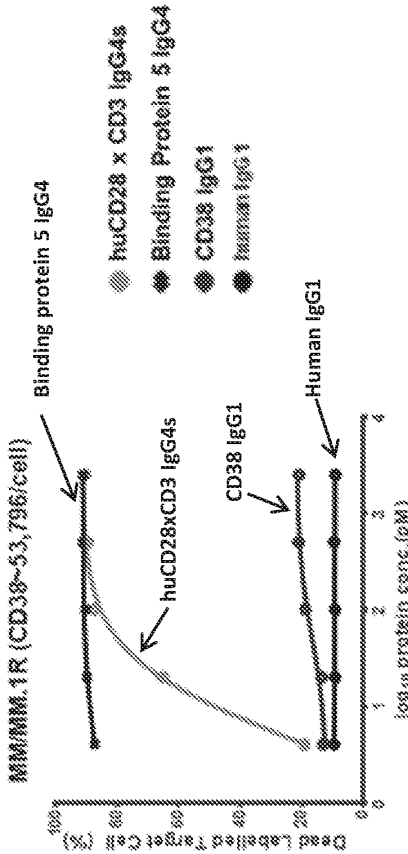


FIG. 12D

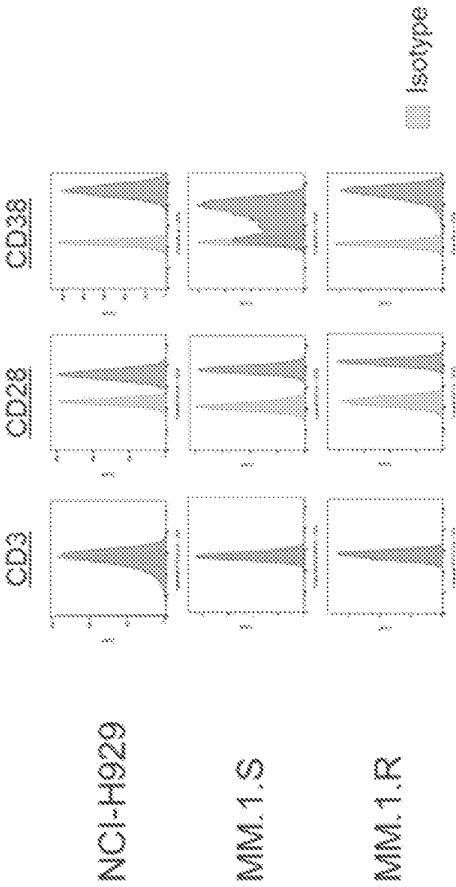


FIG. 13A

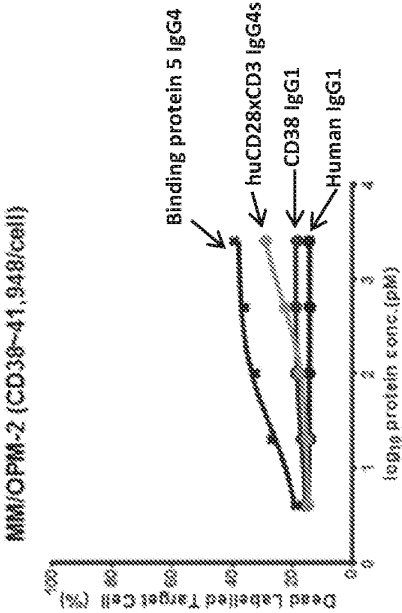


FIG. 13B

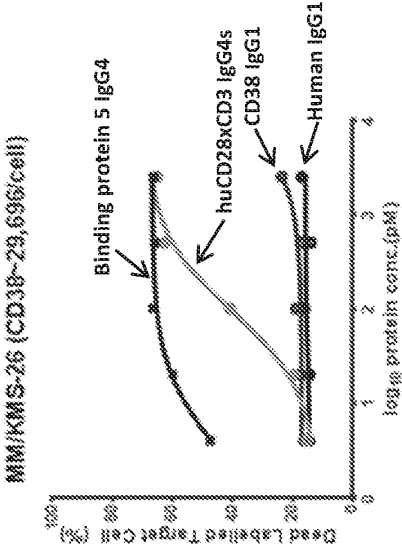


FIG. 13C

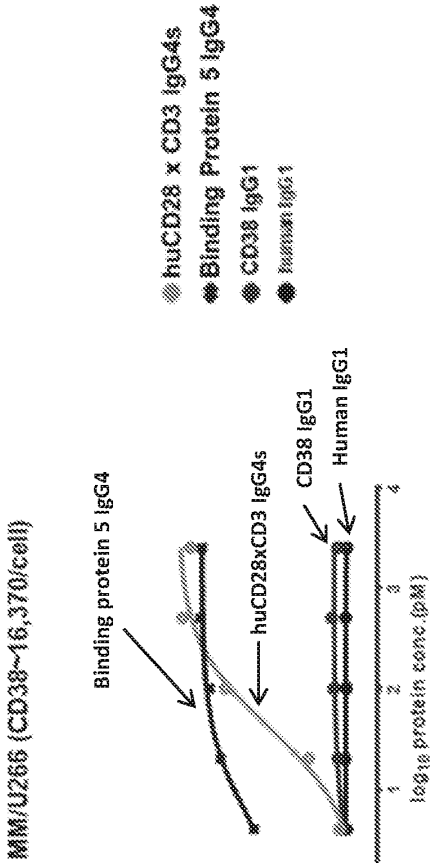


FIG. 13D

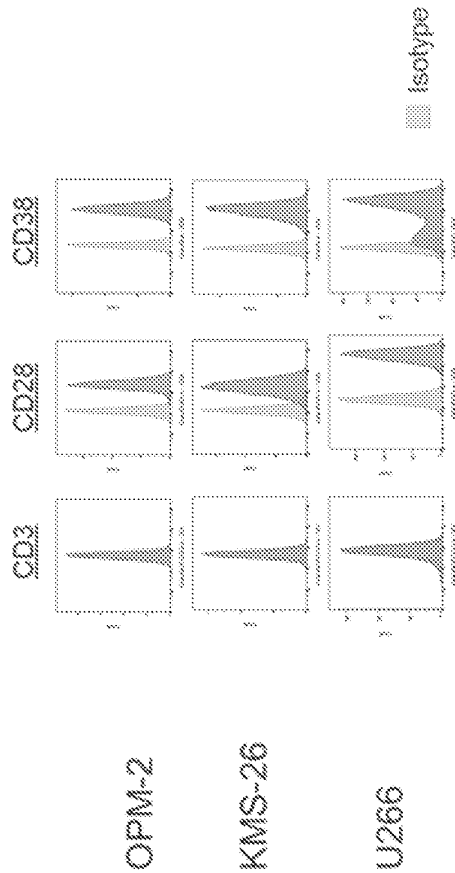


FIG. 14B

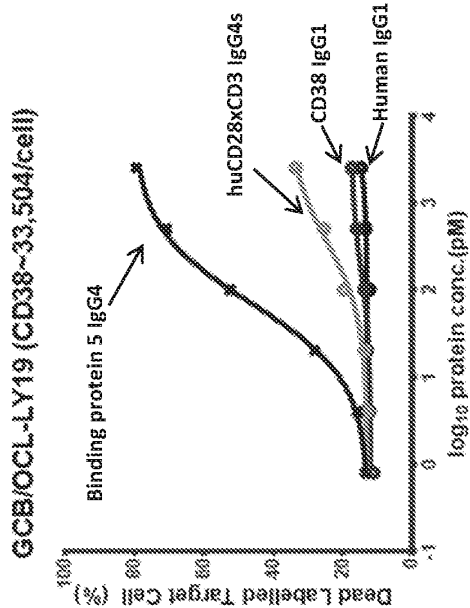
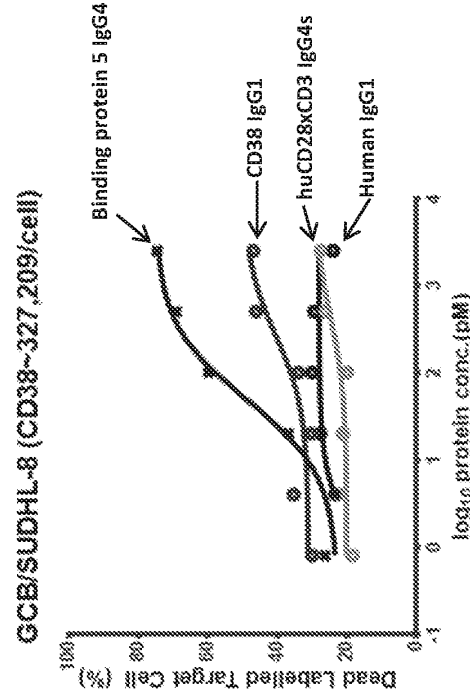


FIG. 14A



- huCD28 x CD3 IgG4s
- Binding Protein 5 IgG4
- CD38 IgG1
- human IgG1

FIG. 14C

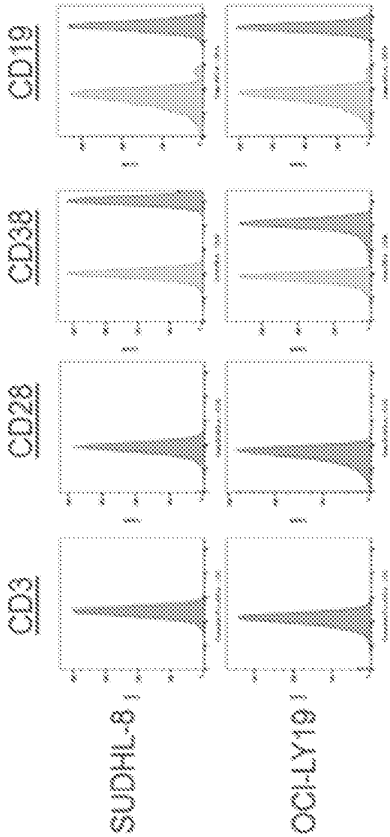


FIG. 15B

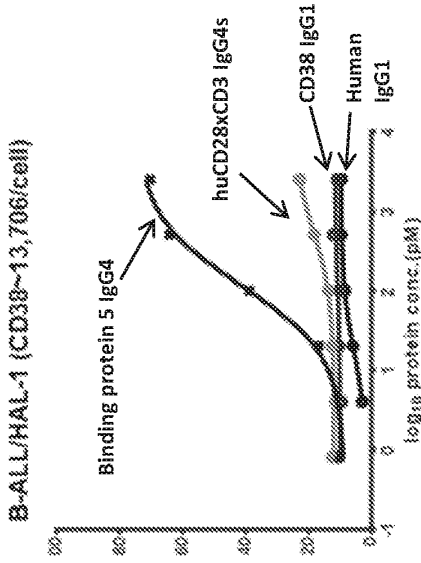


FIG. 15A

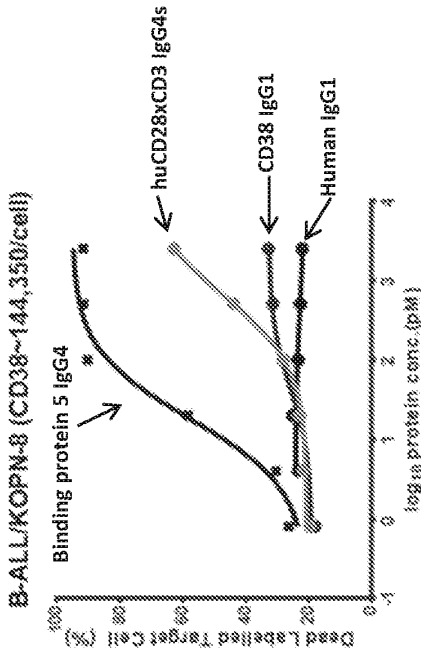


FIG. 15C

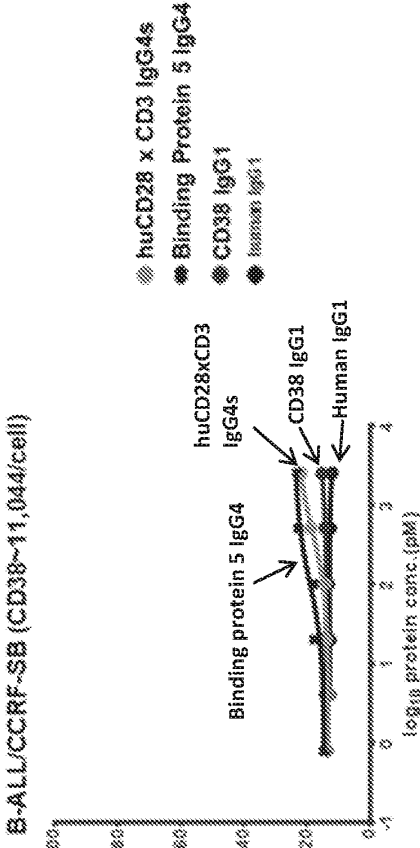


FIG. 15D

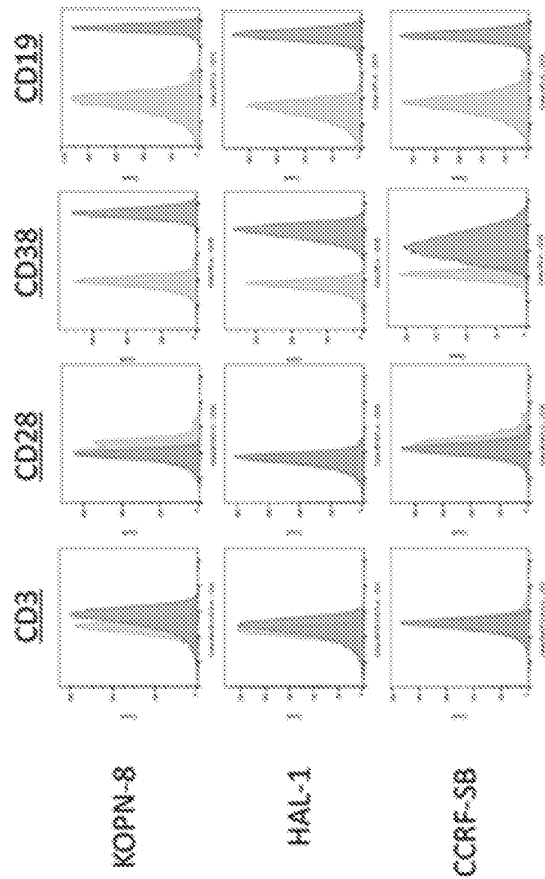


FIG. 16

MM/RPMI (CD38~128,713/cell)
Donor PK45926

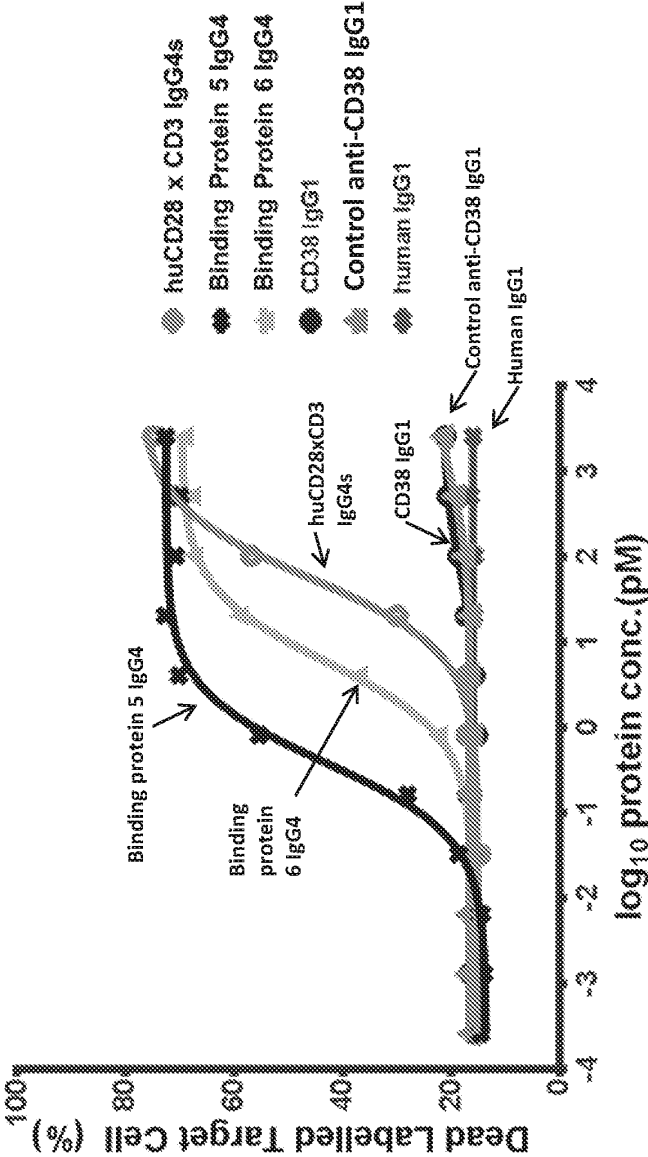


FIG. 17B

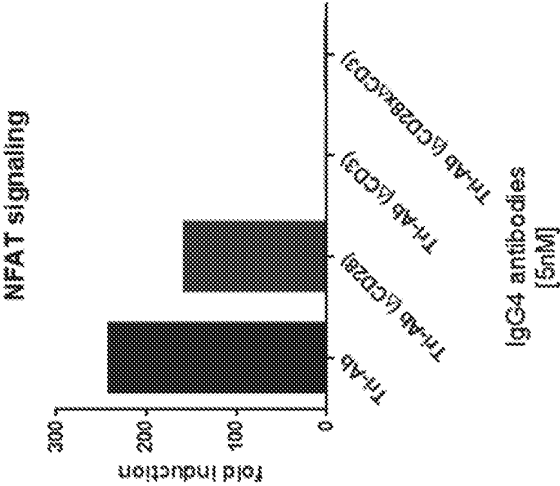


FIG. 17A

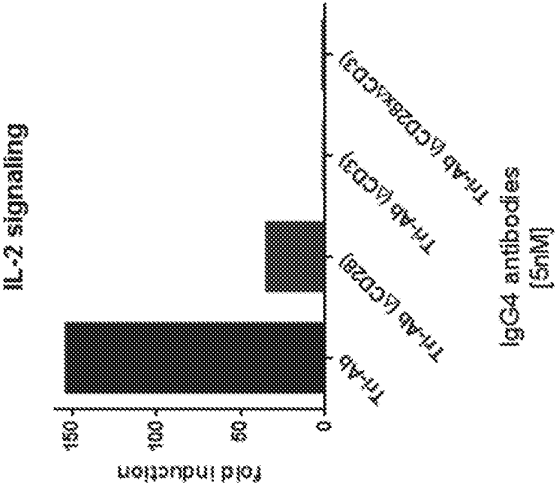


FIG. 18B

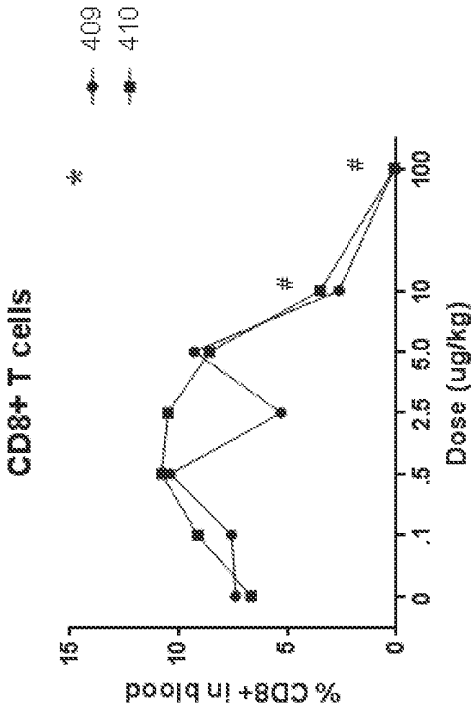


FIG. 18A

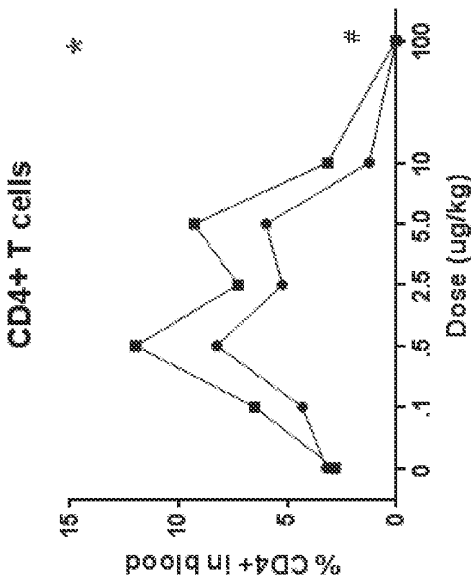


FIG. 18C

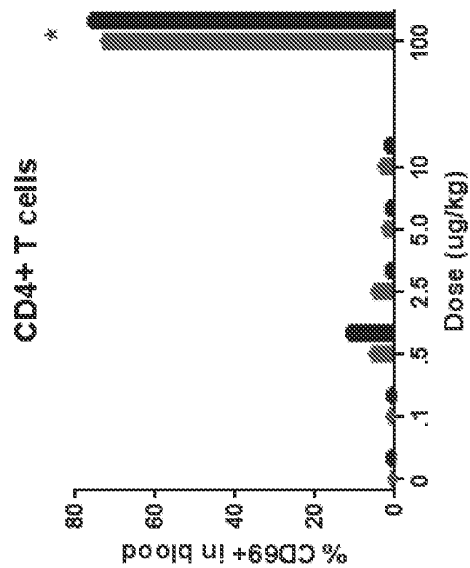
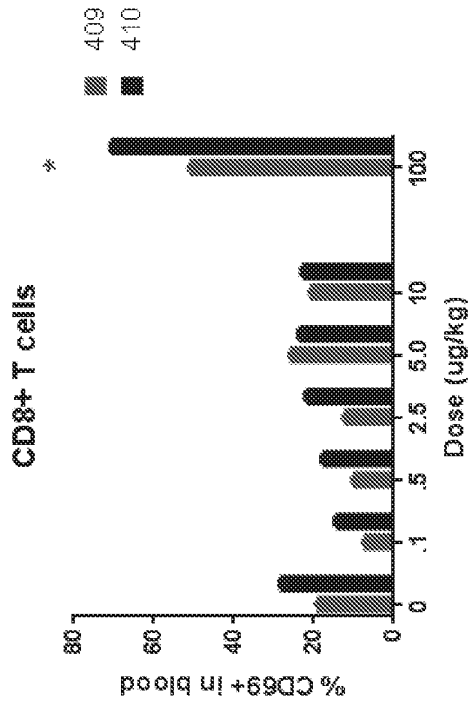


FIG. 18D



* severe vomitus
p<0.05 vs. Dose 0

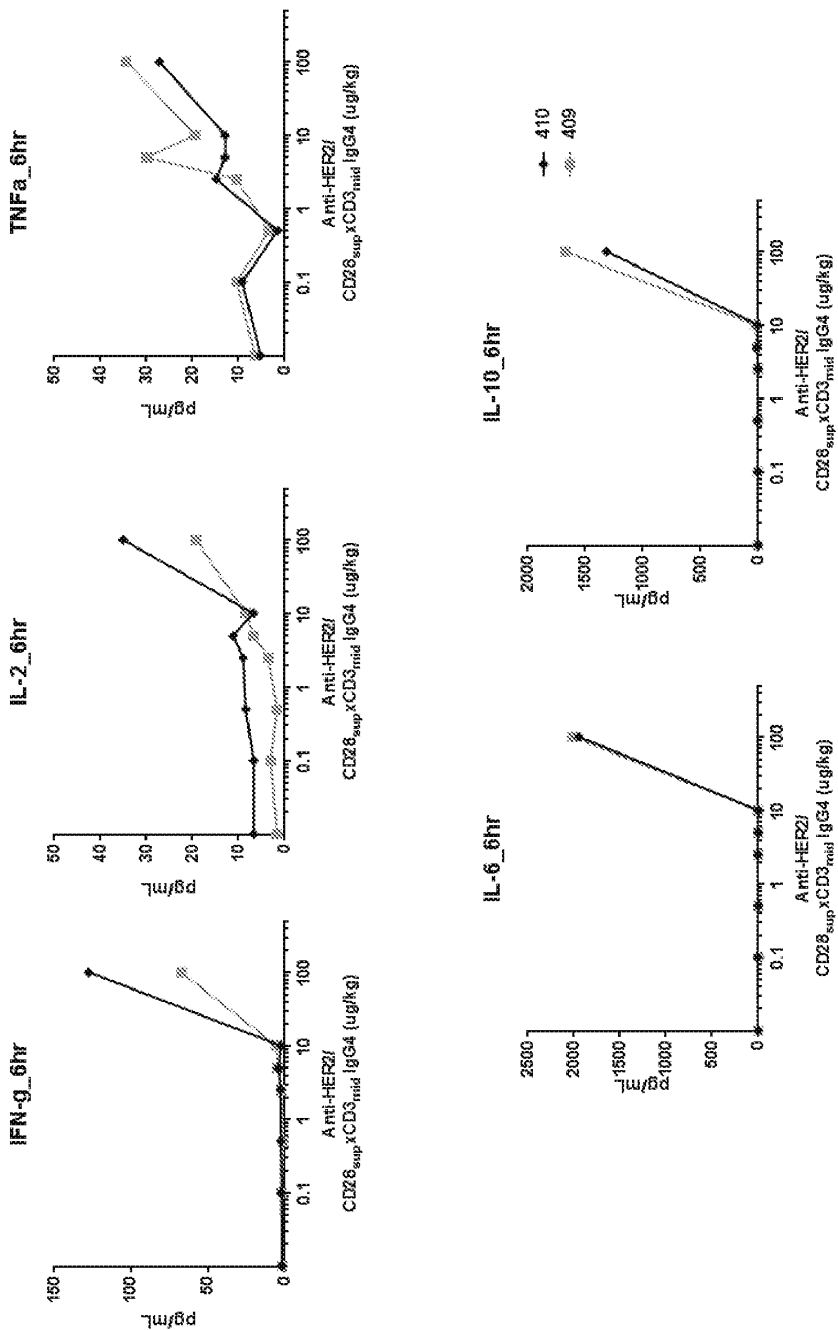


FIG. 18E

FIG. 19A

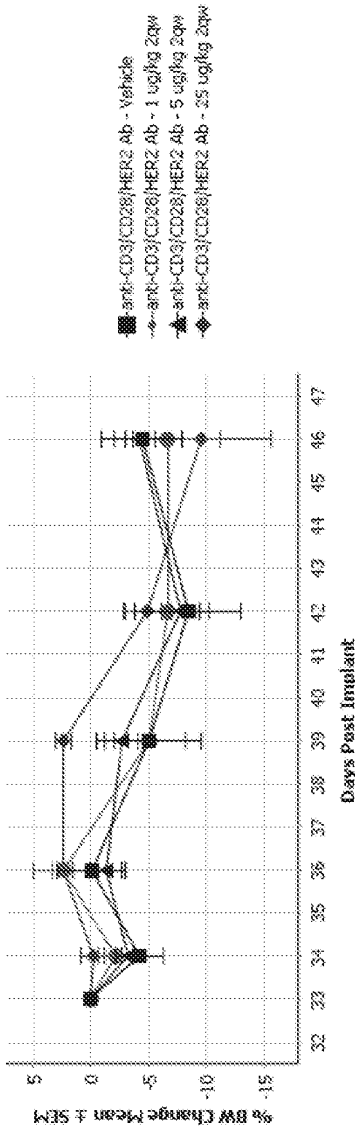
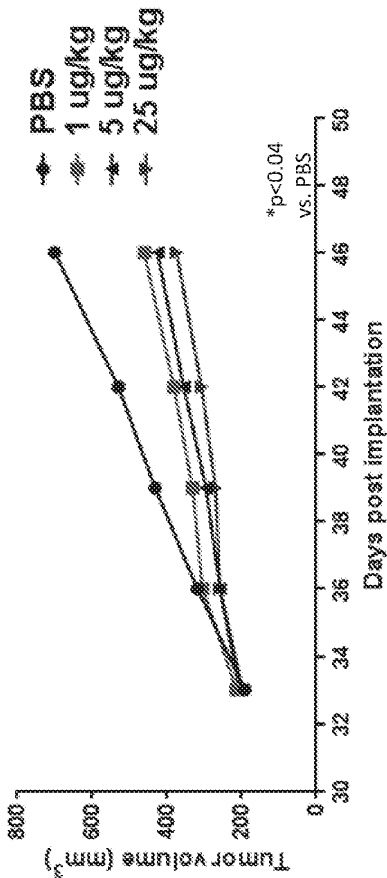


FIG. 19B



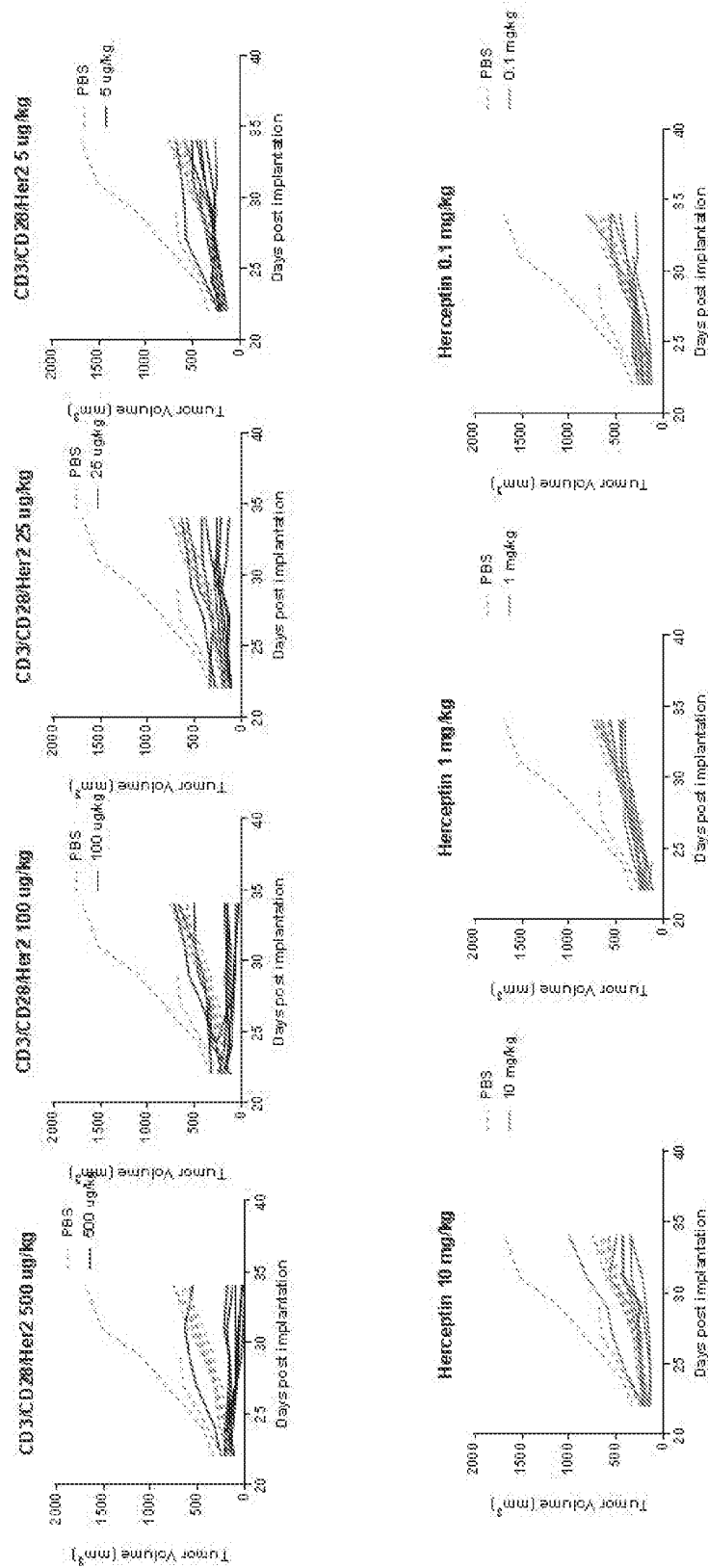


FIG. 20B

FIG. 20D

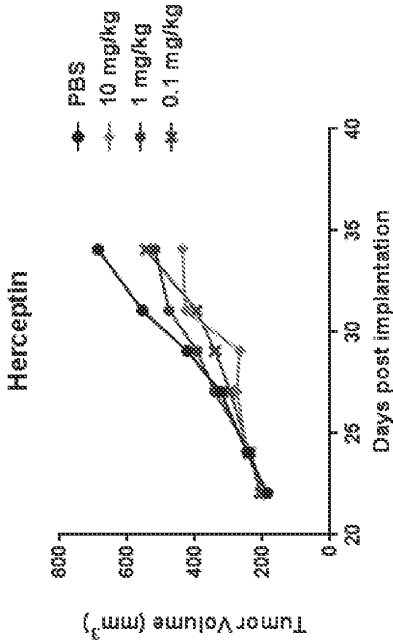


FIG. 20C

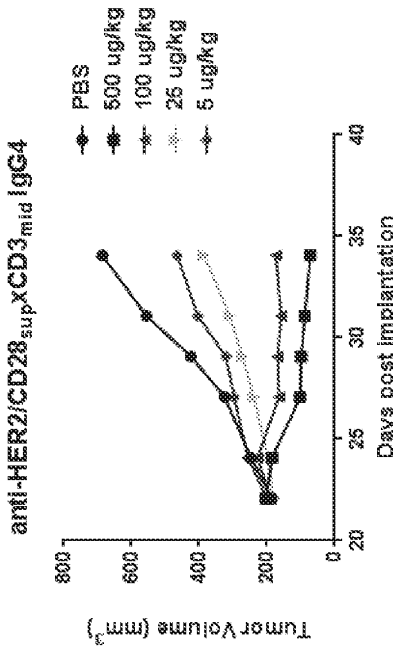


FIG. 20F

Day 34 tumor weight

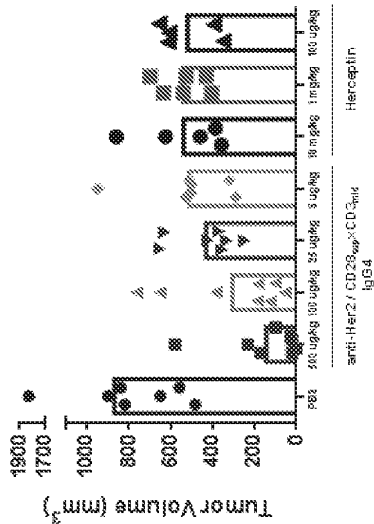
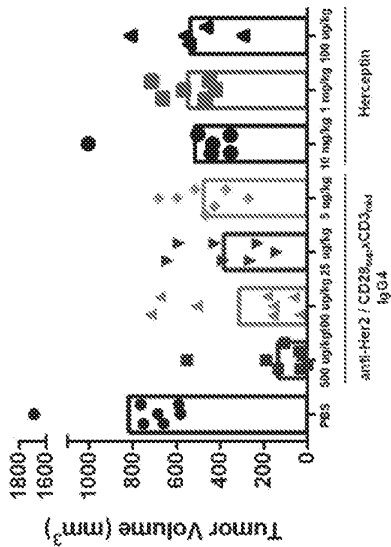


FIG. 20E

Day 34 tumor volume



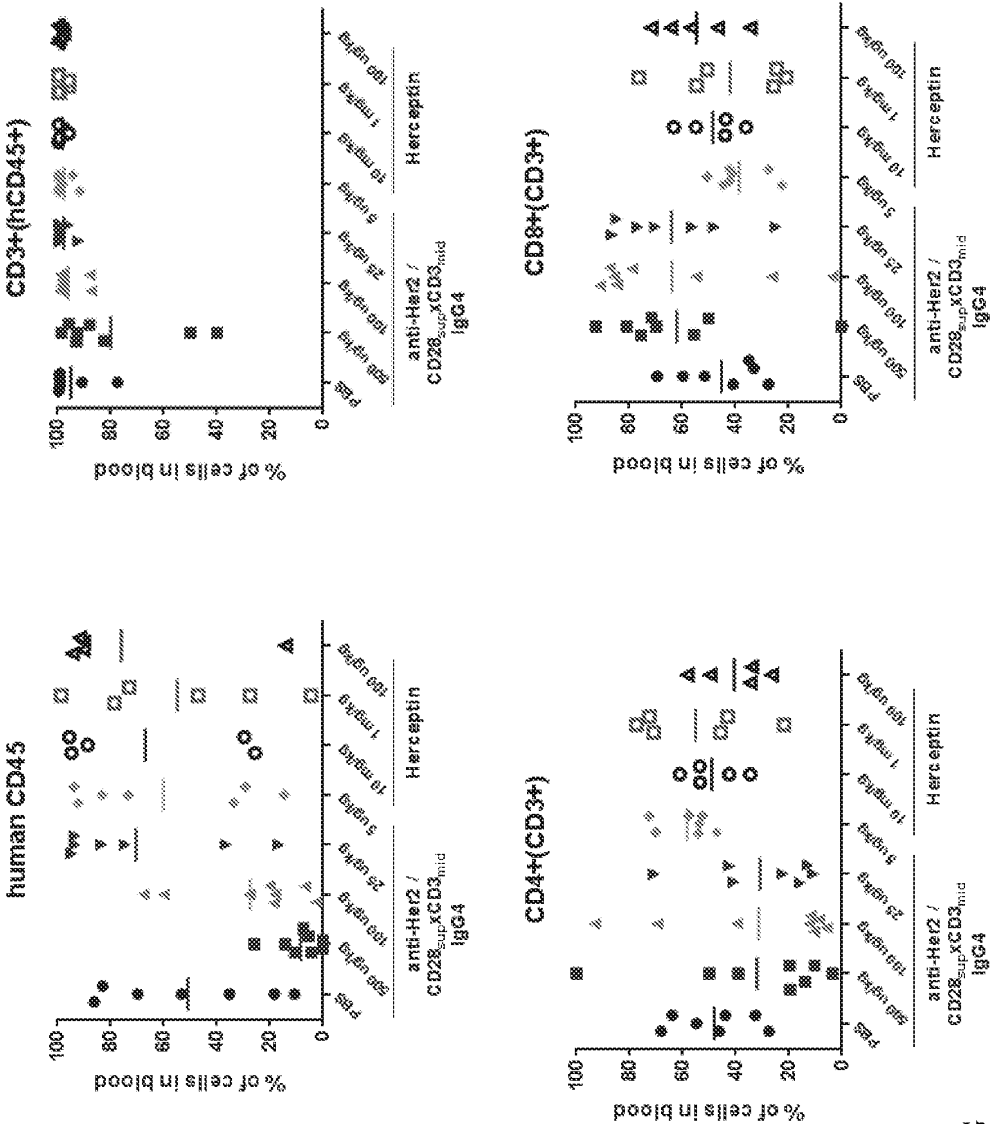


FIG. 20G

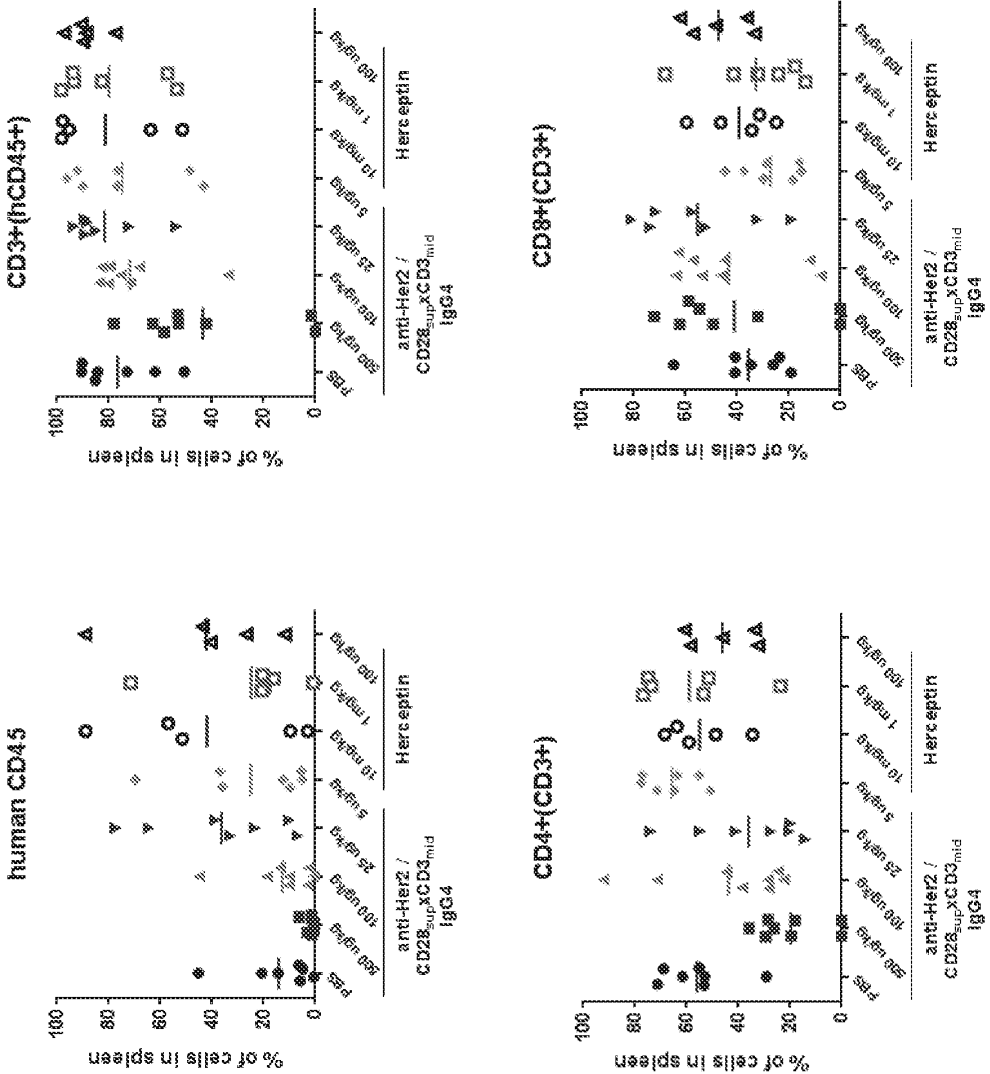


FIG. 20H

FIG. 21A

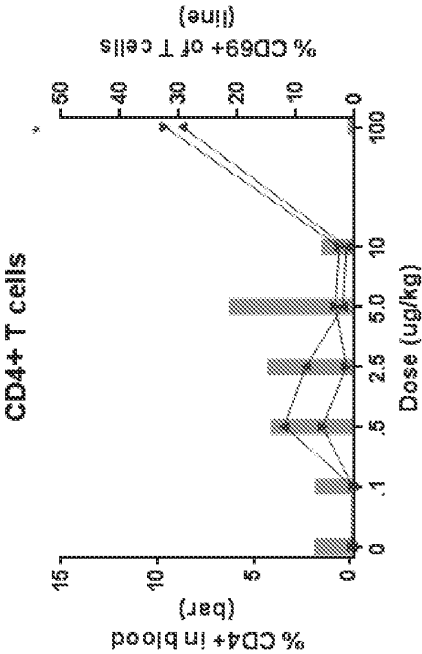
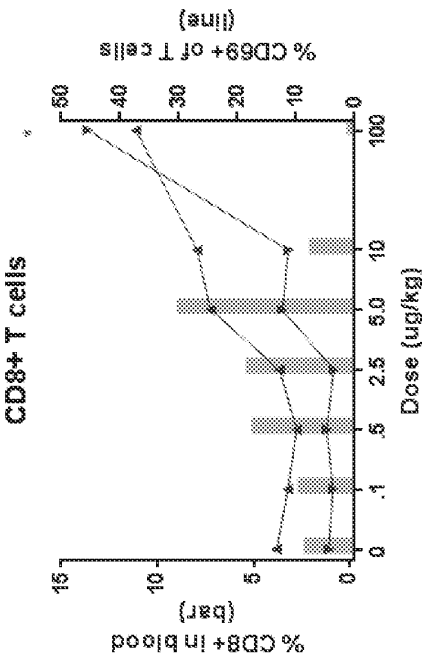


FIG. 21B



*Serious adverse event (vomiting). Animals recovered 24 hrs later.

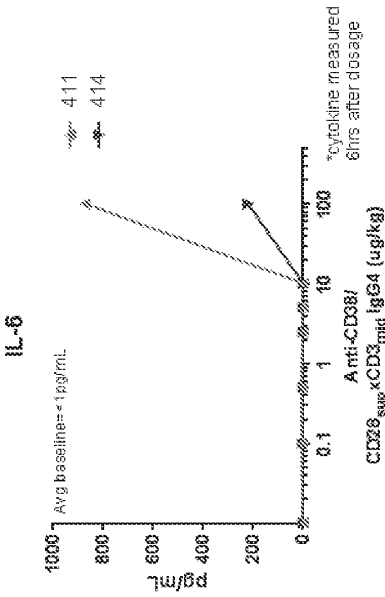


FIG. 21C

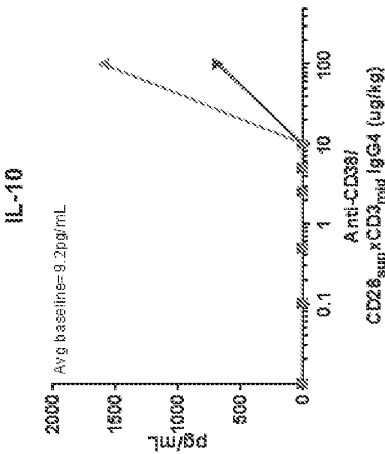


FIG. 21D

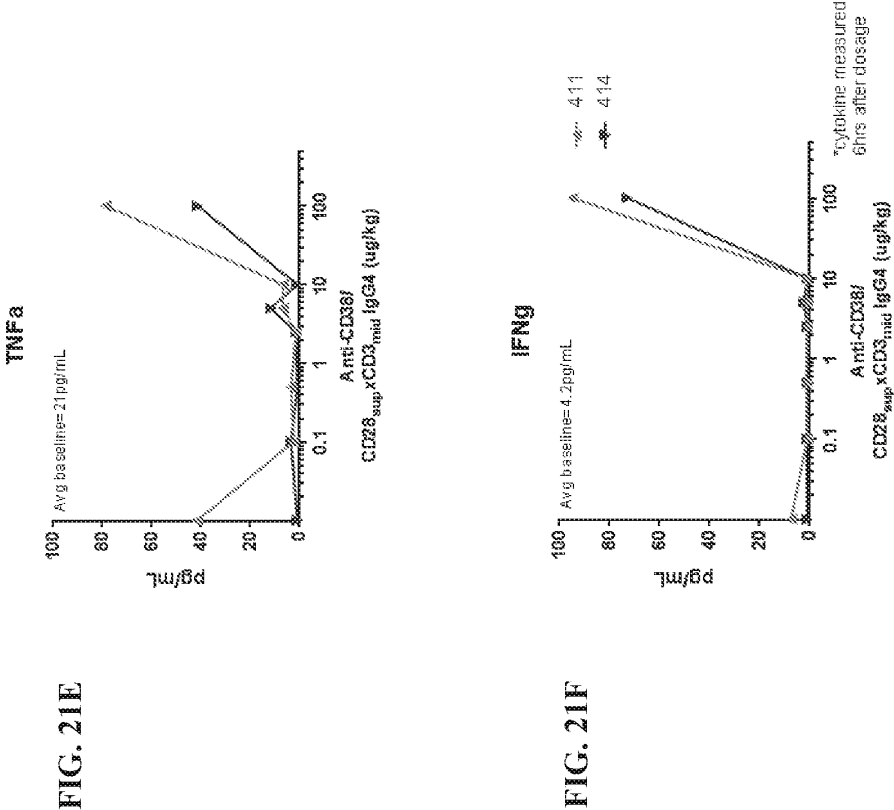


FIG. 22A

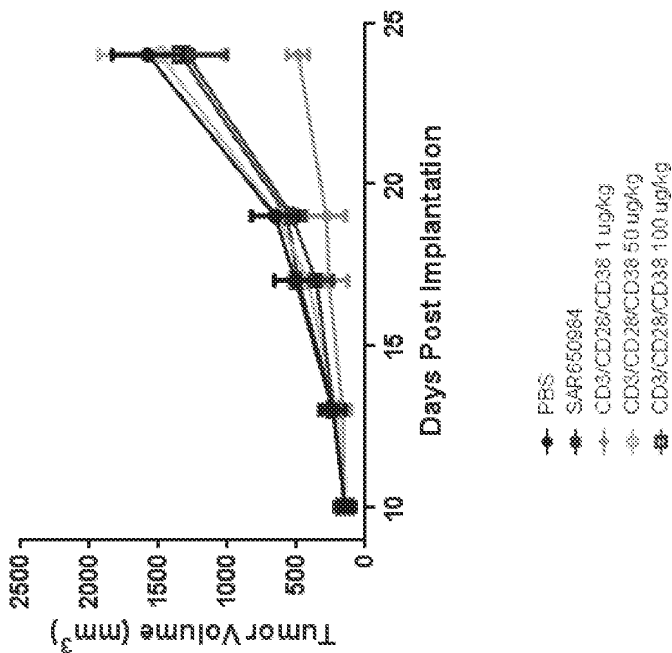
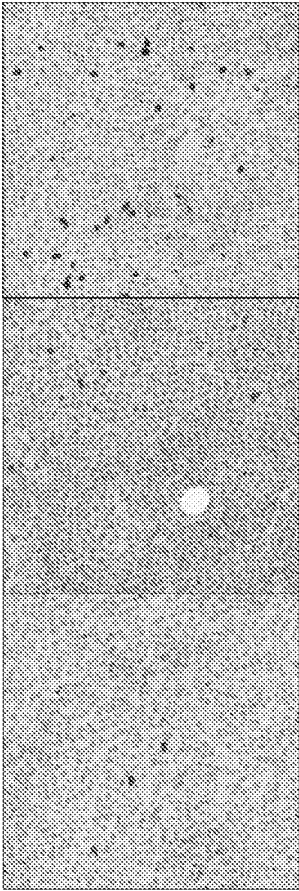
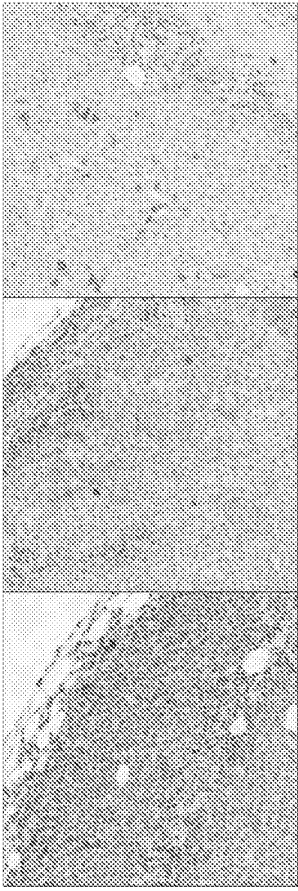


FIG. 22B



Anti-hCD8

FIG. 22C



Anti-hCD4

FIG. 23B

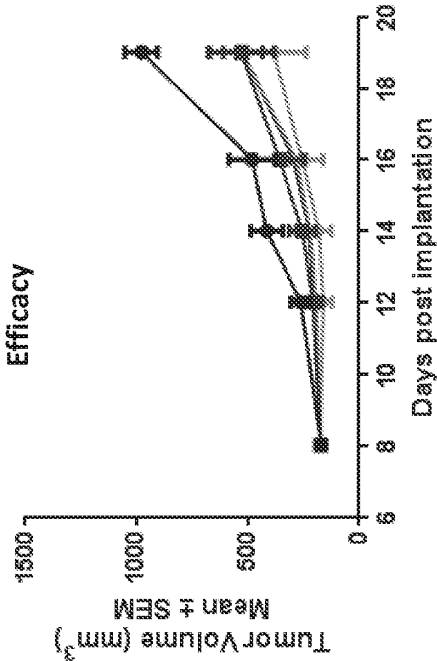
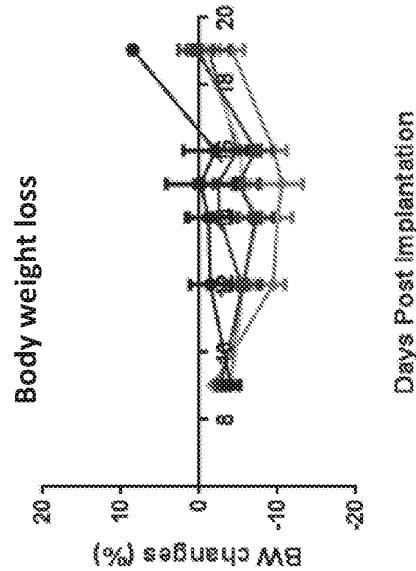


FIG. 23A



- ◆ PBS
- CD3/CD28/CD38 0.04 ug/kg
- ▨ CD3/CD28/CD38 0.2 ug/kg
- ▲ CD3/CD28/CD38 1 ug/kg
- ✦ CD3/CD28/CD38 5 ug/kg

FIG. 23C

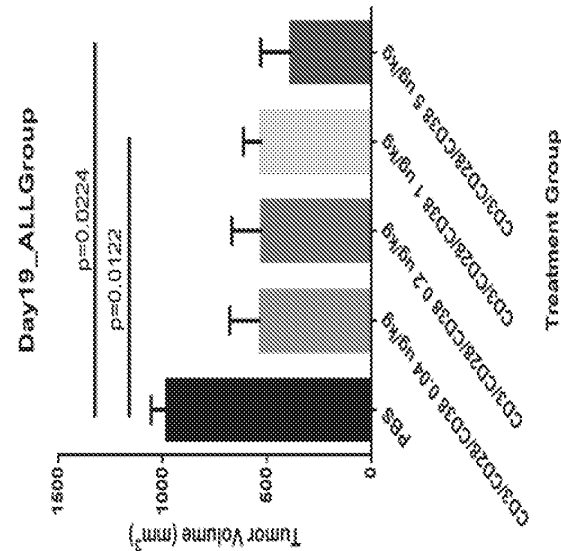


FIG. 23D

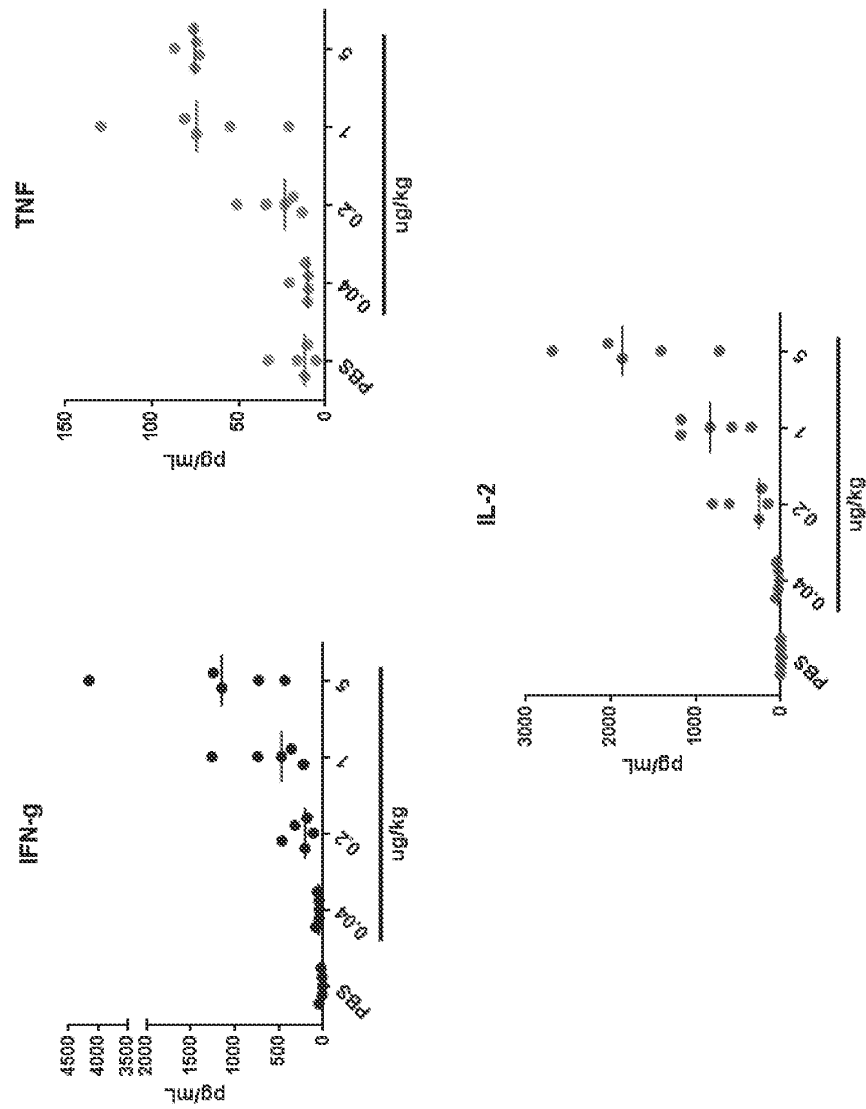


FIG. 25

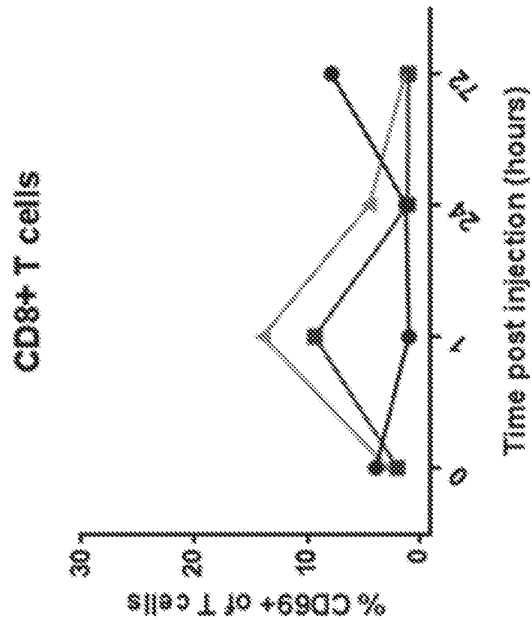
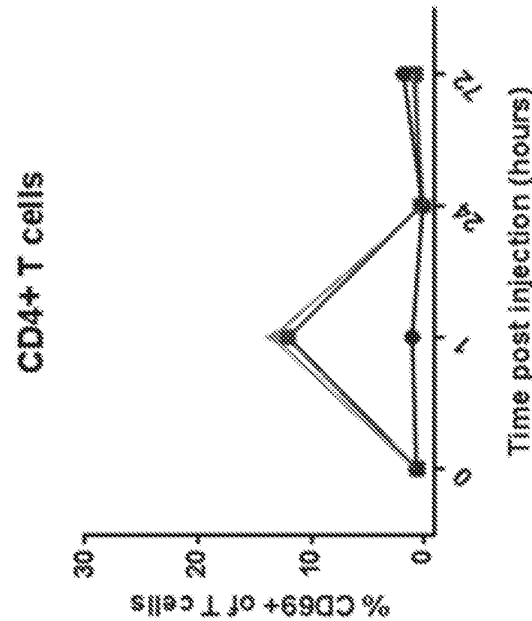


FIG. 24



- CD38_{SB}19 x CD28_{sup} x CD3_{mid} IgG4
- CD28_{sup} x CD3_{mid} IgG4
- CD28_{sup} IgG4

FIG. 26A

IL-2

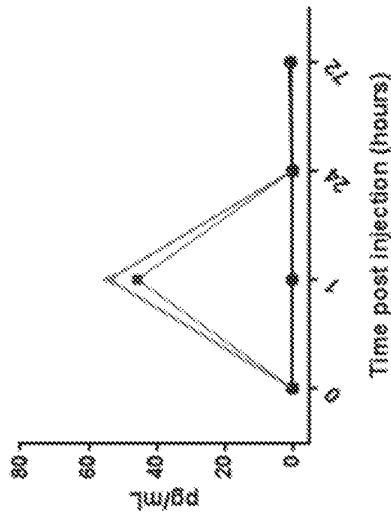


FIG. 26B

TNF

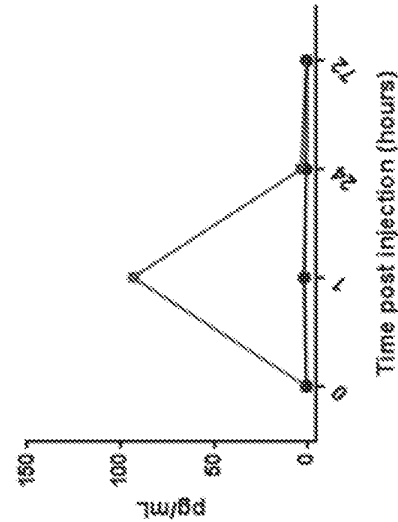


FIG. 26C

IFN- γ

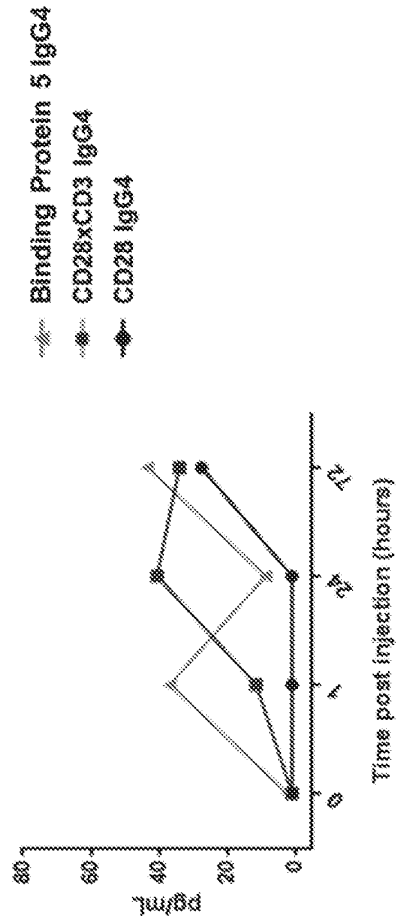


FIG. 27A

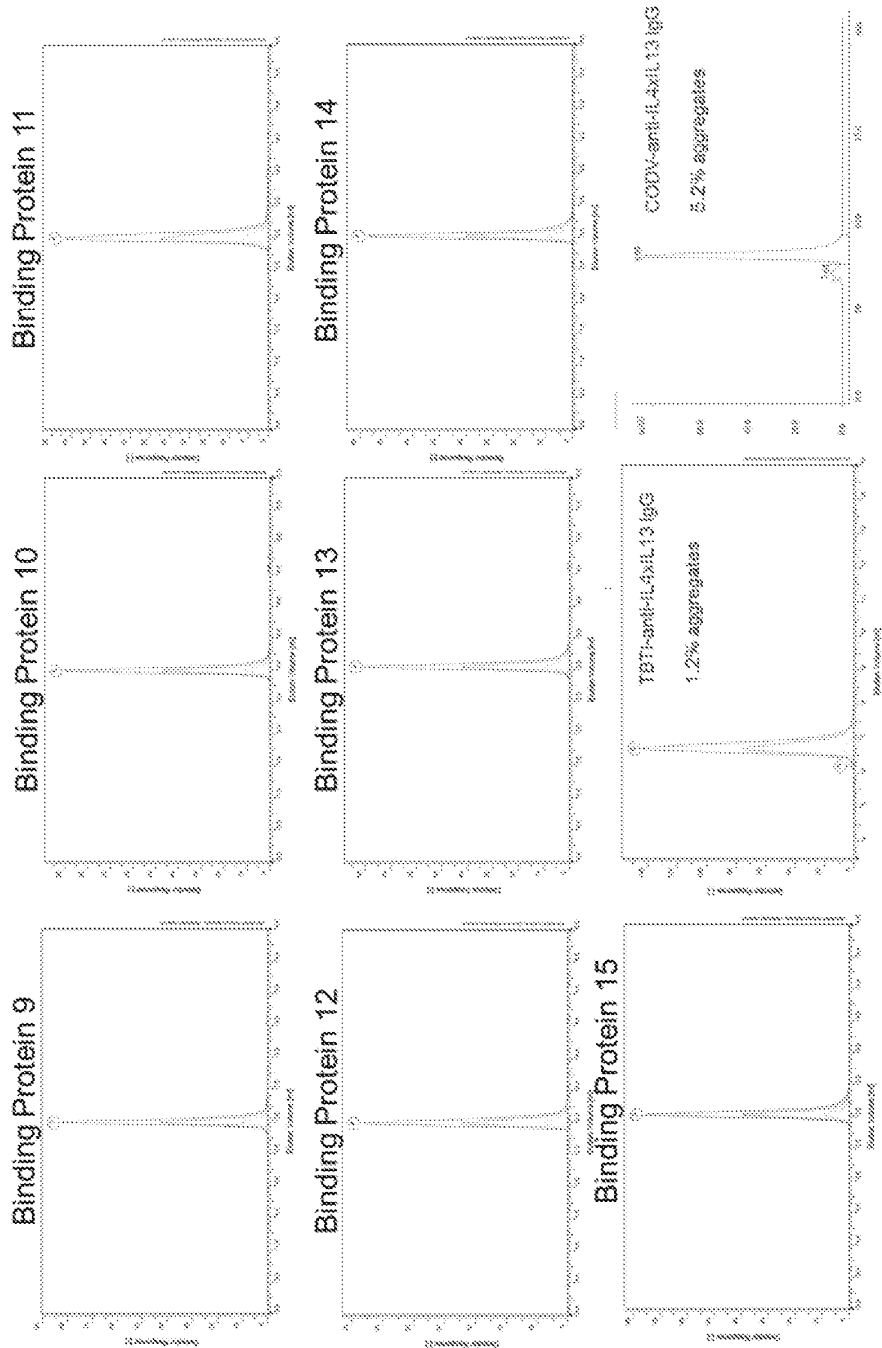


FIG. 27B

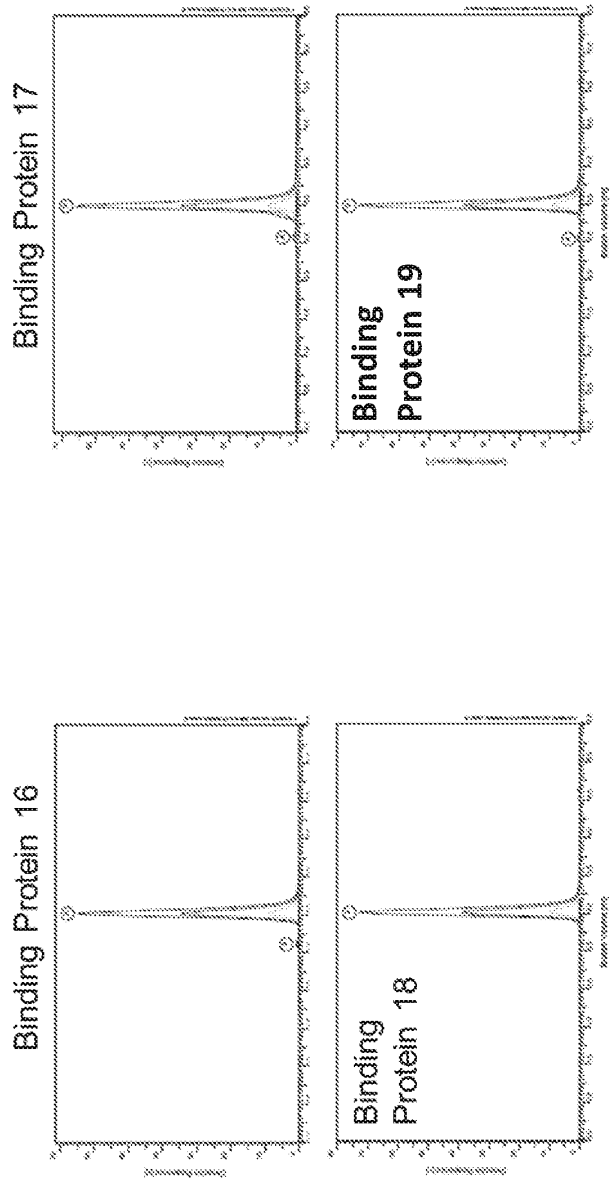


FIG. 28A

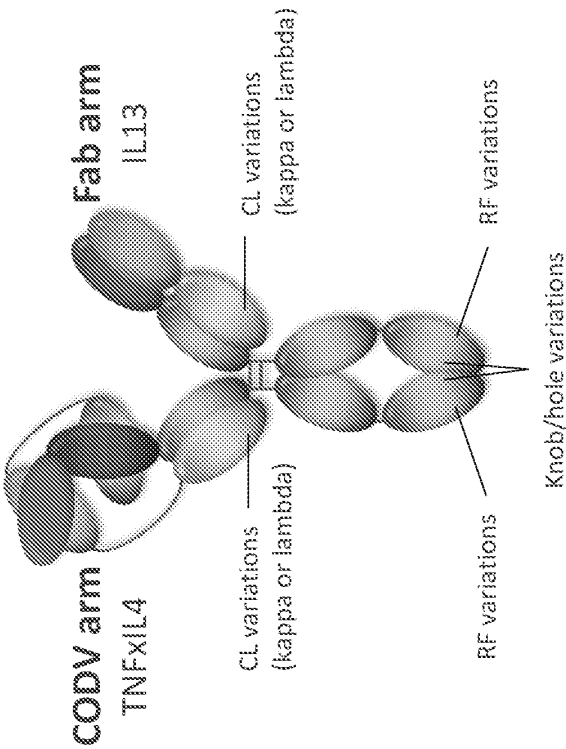
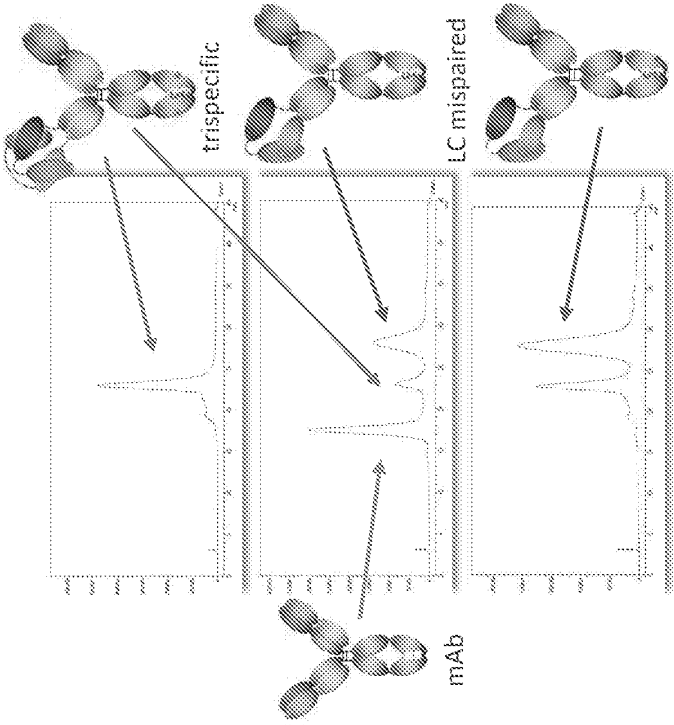


FIG. 28B

CODV- arm	Fab- arm	CODV- arm	Fab- arm	RF mutation
Kappa	Kappa	Hole	Knob	no RF
Kappa	Kappa	Hole	Knob	Hole
Kappa	Kappa	Hole	Knob	Knob
Kappa	lambda	Knob	Hole	no RF
Kappa	lambda	Knob	Hole	Hole
Kappa	lambda	Knob	Hole	Knob
lambda	Kappa	Knob	Hole	no RF
lambda	Kappa	Knob	Hole	Hole
lambda	Kappa	Knob	Hole	Knob
Kappa	Kappa	Knob	Hole	no RF
Kappa	Kappa	Knob	Hole	Hole
Kappa	Kappa	Knob	Hole	Knob
Kappa	lambda	Hole	Knob	no RF
Kappa	lambda	Hole	Knob	Hole
Kappa	lambda	Hole	Knob	Knob
lambda	Kappa	Hole	Knob	no RF
lambda	Kappa	Hole	Knob	Hole
lambda	Kappa	Hole	Knob	Knob

FIG. 29



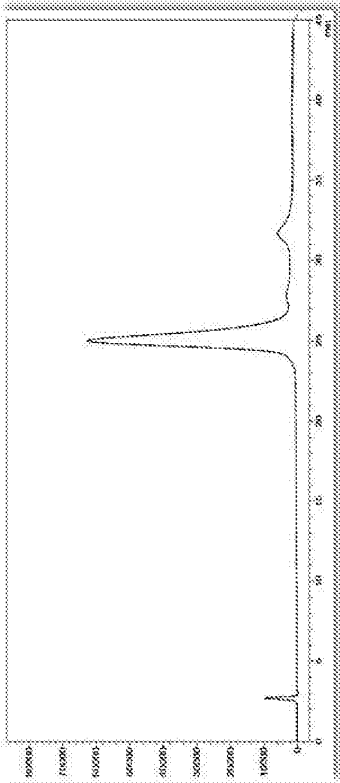


FIG. 30A

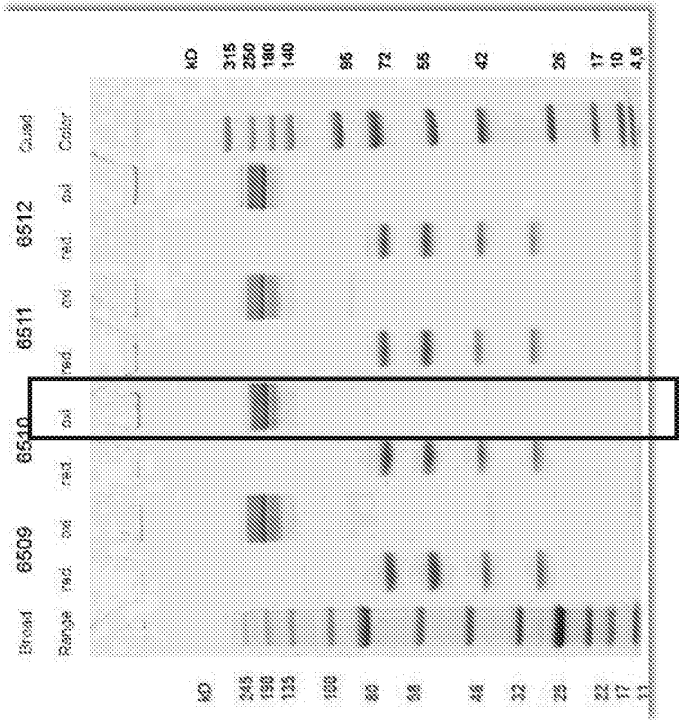


FIG. 30B