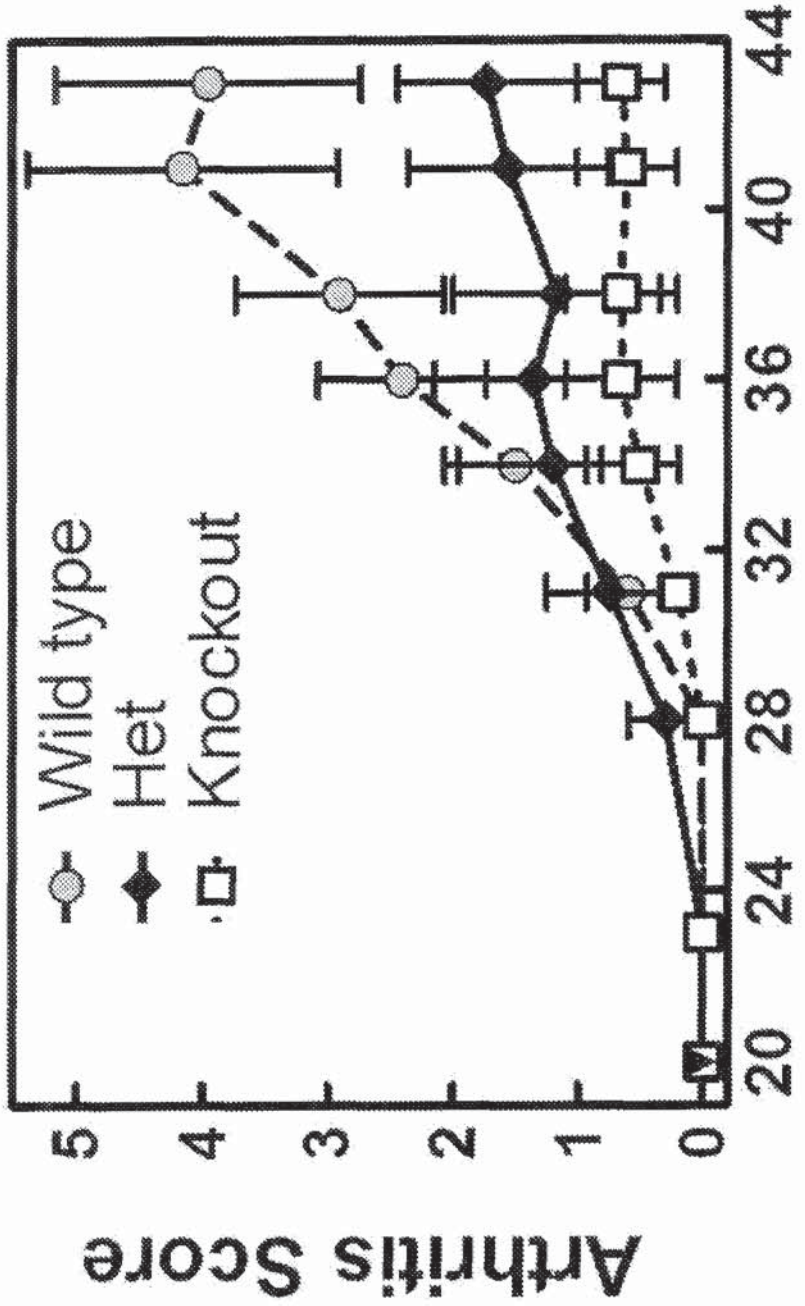

Arthritis Score
0
1
2
3
4
5
20
24
28
32
36
40
44
Days
Wild type
Het
Knockout

FIG. 1

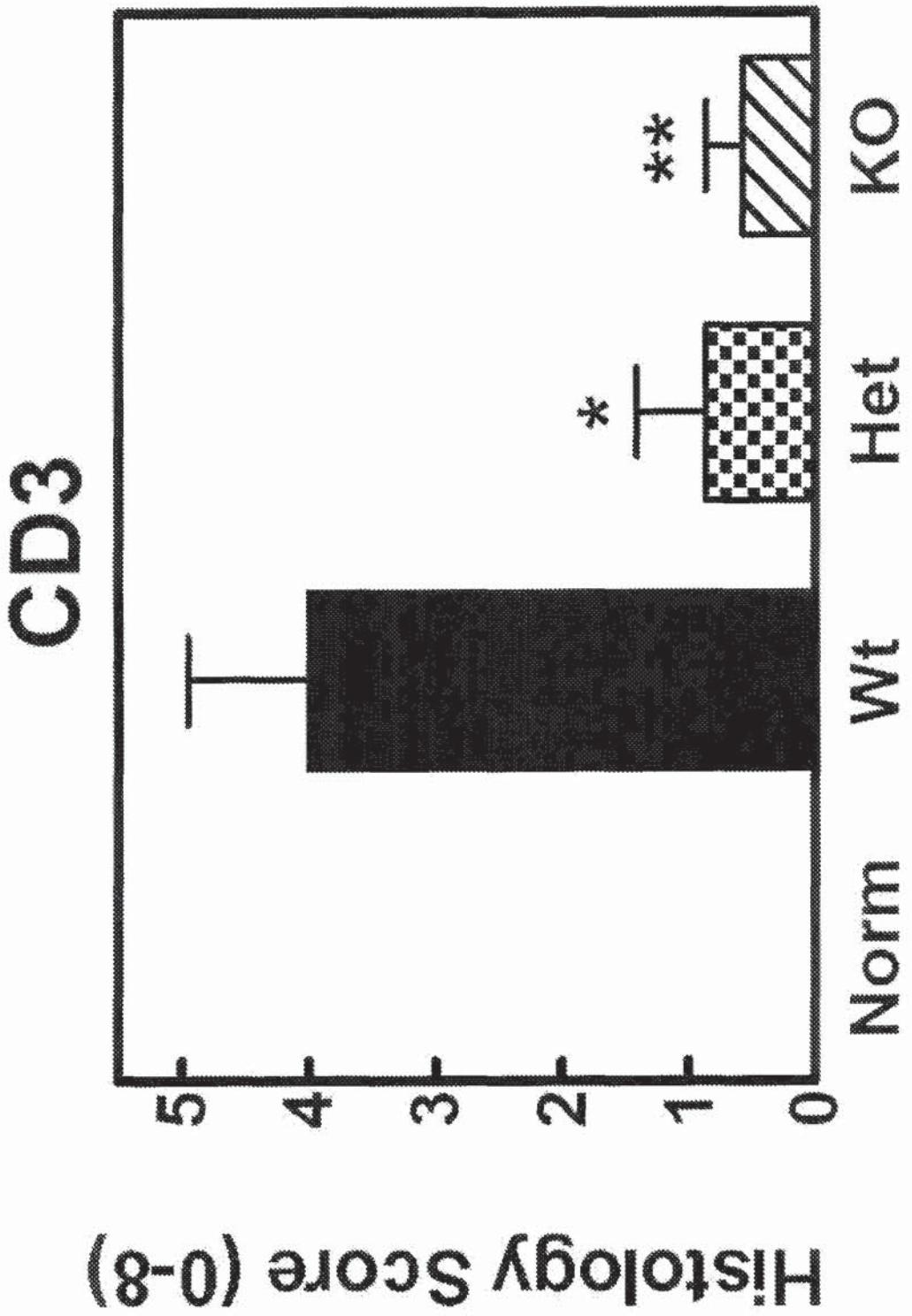


FIG. 2

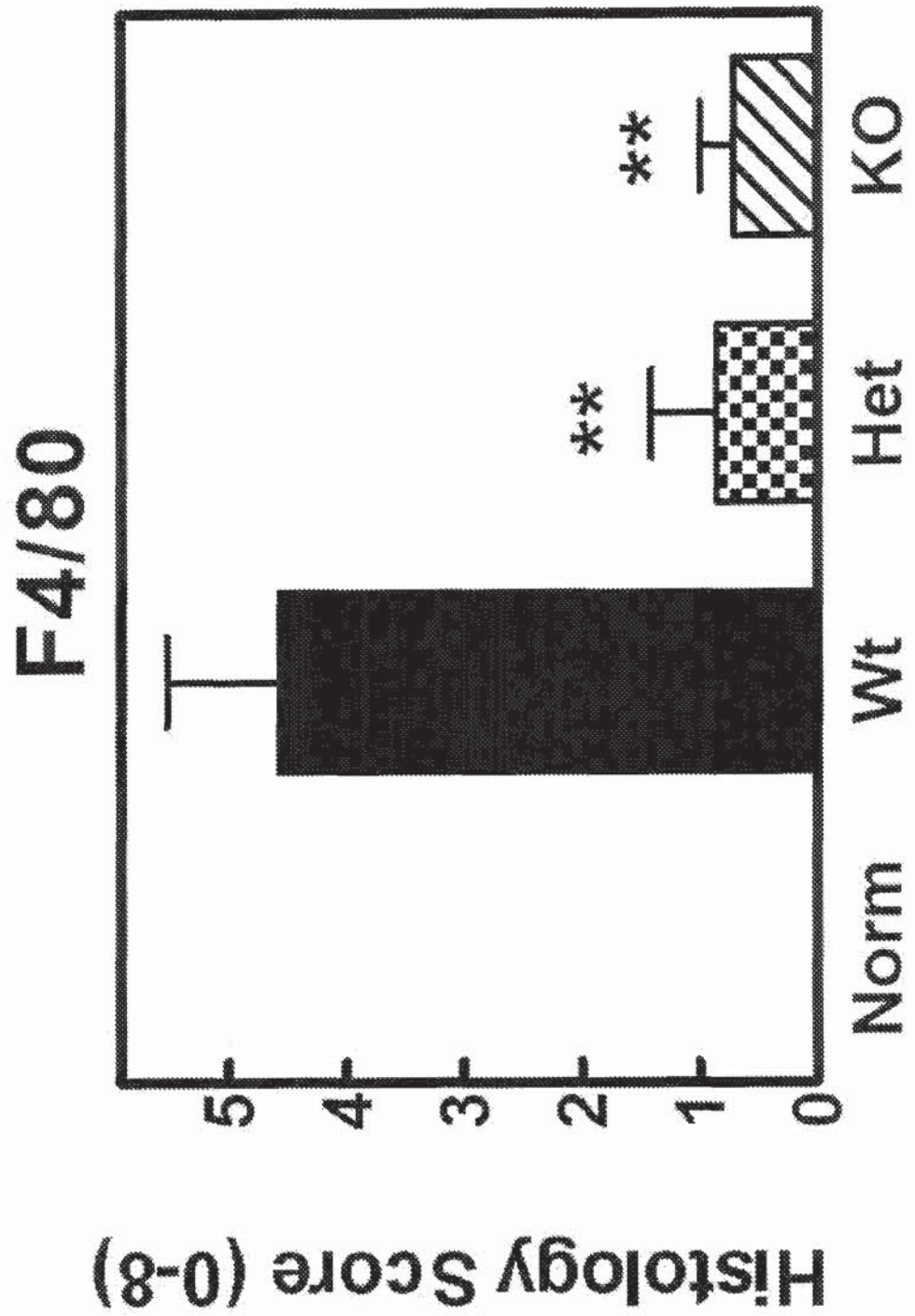


FIG. 3

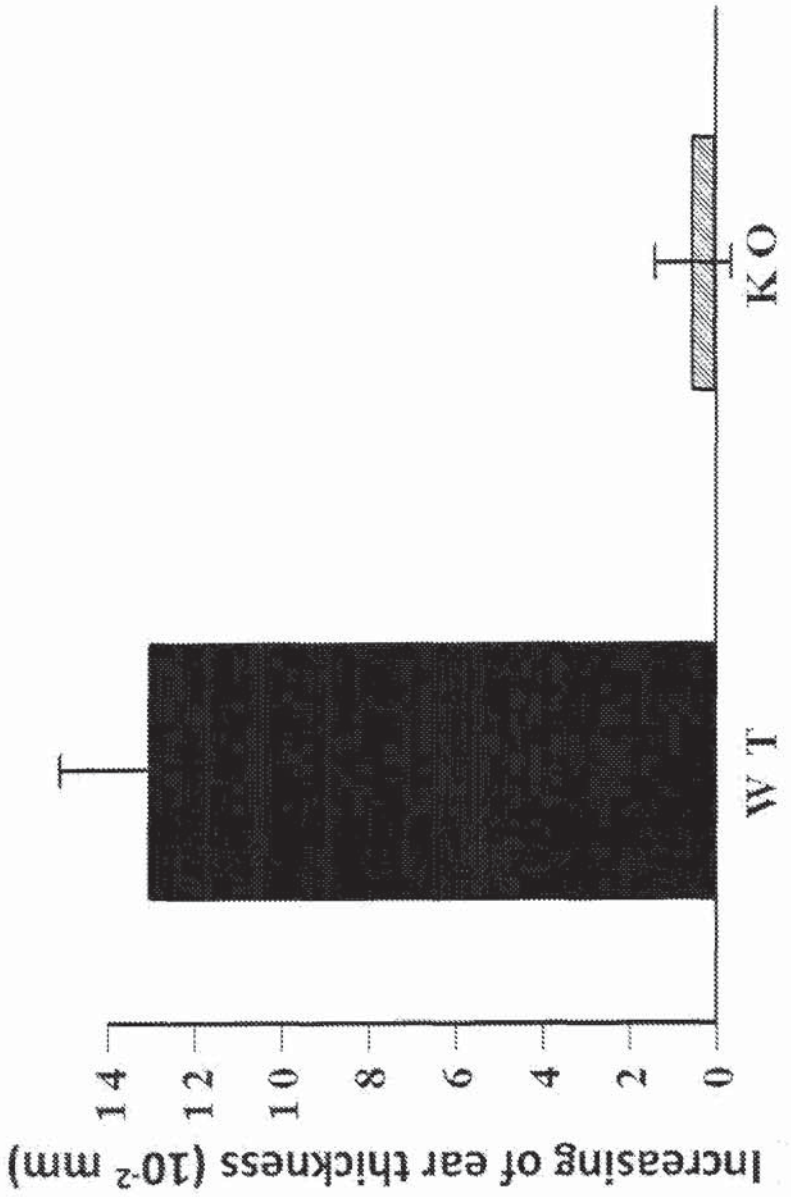


FIG. 4

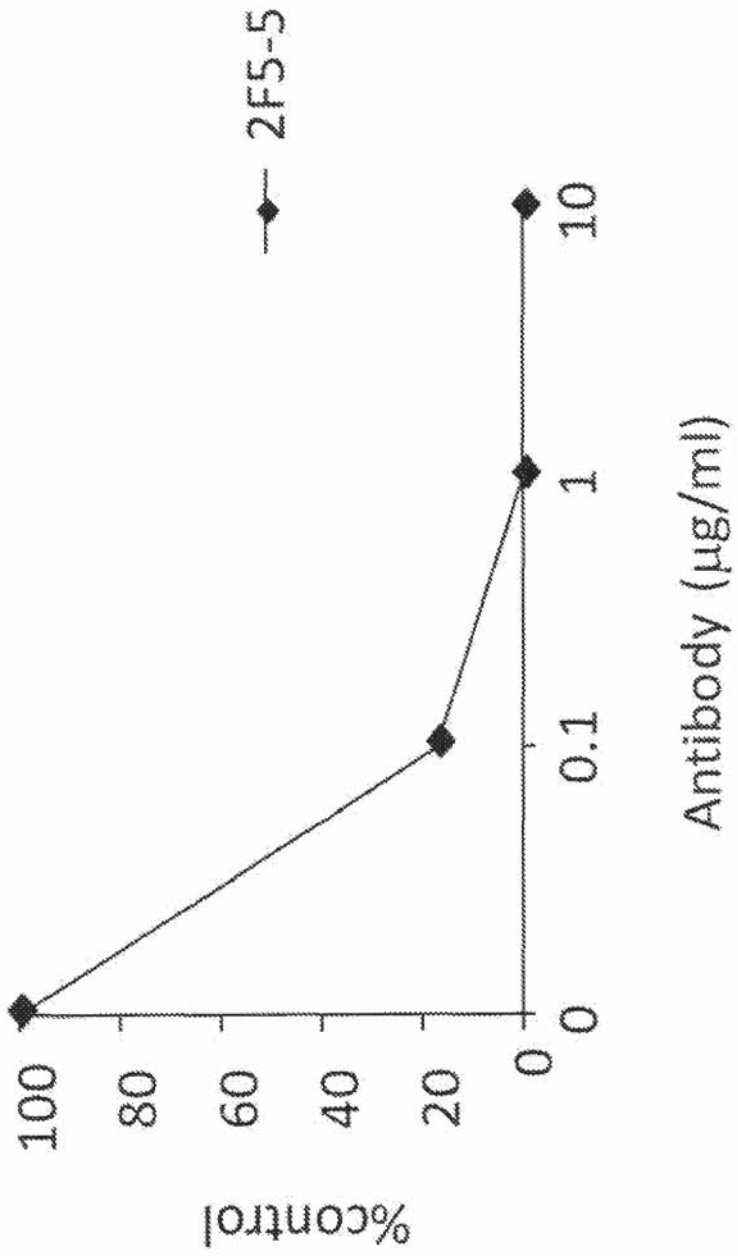


FIG. 5

```
Heavy chain_36
Kabat definition      <-------------FWR1-------------> <CDR1> <----FWR2----> <-------CDR2-----> <---
Chothia definition                              <--CDR1--->                   <--CDR2--->
mouse 36F7C10    1    QVQLQQPGAELVKPGASVKMSCKASGYTFT NYWMH WVKQRPGQGLEWIG VIDPSDSYTTYNQKFKG KATL  70
HC2              1    QVQLVQSGAEVKKPGASVKVSCKASGYTFT NYWMH WVRQAPGQGLEWMG VIDPSDSYTTYAQKFQG RVTM  70
HC3              1    QVQLVQSGAEVKKPGASVKVSCKASGYTFT NYWMH WVKQAPGQGLEWIG VIDPSDSYTTYNQKFKG KATM  70
36HKK3           1    QVQLVQSGAEVKKPGASVKVSCKASGYTFT NYWMH WVRQAPGQGLEWMG VIDPSDSYTTYNQKFKG KATL  70
ABM67212         1    QVQLVQSGAEVKKPGASVKVSCKASGYTFT SYYMH WVRQAPGQGLEWMG IINPSGGSTSYAQKFQG RVTM  70
IGHV1-46*03      1    QVQLVQSGAEVKKPGASVKVSCKASGYTFT SYYMH WVRQAPGQGLEWMG IINPSGGSTSYAQKFQG RVTM  70

Kabat definition      ------------FWR3-------------> <--CDR3---> <---FWR4-->
Chothia definition                                  <--CDR3--->
mouse 36F7C10   71    TVDTSSSTAYMQLSSLTSEDSAVYYCTR GNYGVDYAMDY WGQGTSVTVSS  120
HC2             71    TVDTSTSTVYMELSSLRSEDTAVYYCAR GNYGVDYAMDY WGQGTLVTVSS  120
HC3             71    TRDTSTSTVYMELSSLRSEDTAVYYCTR GNYGVDYAMDY WGQGTSVTVSS  120
36HKK3          71    TVDTSTSTAYMELSSLRSEDTAVYYCTR GNYGVDYAMDY WGQGTLVTVSS  120
ABM67212        71    TRDTSTSTVYMELSSLRSEDTAVYYCAR EGDGYIQAFDY WGQGTLVTVSS  120
IGHV1-46*03     71    TRDTSTSTVYMELSSLRSEDTAVYYCAR                          98
JH4              1                                YFDY WGQGTLVTVSS   15
```

Bold; different residues between mouse and human

Underline; grafted CDRs

Bold Italic; substituted residues with mouse residues

FIG. 6A

Heavy chain_42

Kabat definition		<----------FWR1---------->		<CDR1>	<----FWR2---->		<-------CDR2------>		<---	
Chothia definition			<-CDR1-->				<--CDR2-->			
mouse 42G5B10	1	QVQLQQPGAE**L**VKPGASVK**M**SCKASGYTFT		SY**W**MH	WVK**Q**RPGQGLEWIG		**L**IDPS**D**KY**T**NY**N**QKFKG		**K**ATL	70
42HKK1	1	QVQLVQSGAEVKKPGASVKVSCKASGYTFT		SYWMH	WVRQAPGQGLEWMG		LIDPSDKYTNYNQKFKG		RVTM	70
42HKK2	1	QVQLVQSGAEVKKPGASVKVSCKASGYTFT		SYWMH	WVRQAPGQGLEWMG		LIDPSDKYTNYNQKFKG		RVTL	70
42HKK3	1	QVQLVQSGAEVKKPGASVKVSCKASGYTFT		SYWMH	WVRQAPGQGLEWMG		LIDPSDKYTNYNQKFKG		**K**ATL	70
ABM67212	1	QVQLVQSGAEVKKPGASVKVSCKASGYTFT		SYYMH	WVRQAPGQGLEWMG		IINPSGGSTSYAQKFQG		RVTM	70
IGHV1-46*03	1	QVQLVQSGAEVKKPGASVKVSCKASGYTFT		SYYMH	WVRQAPGQGLEWMG		IINPSGGSTSYAQKFQG		RVTM	70

Kabat definition		----------FWR3---------->	<--CDR3--->	<---FWR4-->		
Chothia definition			<--CDR3--->			
mouse 42G5B10	71	T**V**DTSSS**T**A**Y**M**Q**LSSLT**S**EDS**A**VYYCT**R**	**GNYGVDYGM**DY	WGQGT**S**VTVSS	120	
42HKK1	71	TRDTSTSTVYMELSSLRSEDTAVYYCAR	GNYGVDYGMDY	WGQGTLVTVSS	120	
42HKK2	71	T**V**DTSTSTVYMELSSLRSEDTAVYYC**T**R	GNYGVDYGMDY	WGQGTLVTVSS	120	
42HKK3	71	T**V**DTSTST**A**YMELSSLRSEDTAVYYC**T**R	GNYGVDYGMDY	WGQGTLVTVSS	120	
ABM67212	71	TRDTSTSTVYMELSSLRSEDTAVYYCAR	EGDGYIQAFDY	WGQGTLVTVSS	120	
IGHV1-46*03	71	TRDTSTSTVYMELSSLRSEDTAVYYCAR			98	
JH4	1		YFDY	WGQGTLVTVSS	15	

Bold; different residues between mouse and human

Underline; grafted CDRs

Bold Italic; substituted residues with mouse residues

FIG. 6B

Light chain

Kabat definition		<----------FWR1--------->	<---CDR1-->	<-------FWR2---->	<-CDR2>	<--------------	
Chothia definition			<---CDR1-->		<-CDR2>		
mouse 36F7C10	1	DIQMTQSPASLSASVGETVTITC	GASENIYGALN	WYQRKQGKSPQLLIY	GATNLAD	GMSSRFSGSGSGRQ	70
LC3	1	DIQMTQSPSSLSASVGDRVTITC	RASENIYGALN	WYQQKPGKAPKLLIY	GATNLAD	GVPSRFSGSGSGRQ	70
LK3	1	DIQMTQSPSSLSASVGDRVTITC	GASENIYGALN	WYQRKPGKAPKLLIY	GATNLAD	GVPSRFSGSGSGRD	70
BAH04867.1	1	DIQMTQSPSSLSASVGDRVTITC	RASQSISSYLN	WYQQKPGKAPKLLIY	AASSLQS	GVPSRFSGSGSGTD	70
IGKV1D-39*01	1	DIQMTQSPSSLSASVGDRVTITC	RASQSISSYLN	WYQQKPGKAPKLLIY	AASSLQS	GVPSRFSGSGSGTD	70

Kabat definition	-FWR3------------->	<-CDR3-->	<--FWR4--->		
Chothia definition		<-CDR3-->			
mouse 36F7C10	71	YSLRISSLRPDDVATYYC	QNVLITPYT	FGGGTKLEIK	107
LC3	71	YSLTISSLQPEDFATYYC	QNVLITPYT	FGGGTKLEIK	107
LK3	71	YTLTISSLQPEDFATYYC	QNVLITPYT	FGQGTKLEIK	107
BAH04867.1	71	FTLTISSLQPEDFATYYC	QQSYSTPYT	FGQGTKLEIK	107
IGKV1D-39*01	71	FTLTISSLQPEDFATYYC	QQSYSTPP		96

Bold; different residues between mouse and human

Underline; grafted CDRs

Bold Italic; substituted residues with mouse residues

Underline, Italic; substituted residues with human residues

FIG. 6C

IC50 (nM, mean±SD)				
OR: out of range				
If no SD value is shown, the assay was single.				
		Heavy chain		
		36HCM1	40HCM1	42HCM1
Light chain	36LM1	3.297±2.303	15.483±12.423	1.903±0.707
	40LM1	OR	3.423±0.975	8.580±1.858
	42LM1	OR	OR	3.297±1.330
		Heavy chain		
		36HKK1	36HKK2	36HKK3
Light chain	36LK1	1.870±0.281	1.323±0.258	0.987±0.219
	36LK2	2.513±0.828	1.220±0.474	1.107±0.474
	36LK3	1.240±0.192	1.233±0.075	1.313±0.245
		Heavy chain		
		42HKK1	42HKK2	42HKK3
Light chain	42LK1	13.51	18.22	18.97
	42LK2	9.72	13.35	13.6
	42LK3	2.38	1.99	3.09
		Heavy chain		
		42HKK1	42HKK2	42HKK3
Light chain	36LK1	1.39	2.62	1.86
	36LK2	1.33	1.08	1.59
	36LK3	1.357±0.250	1.663±0.475	1.467±0.160
		Heavy chain		
		36HKK3	36HC2	36HC3
Light chain	36LK3	1.210±0.306	1.014±0.330	1.128±0.041
	36LC3	1.265±0.266	1.117±0.193	1.327±0.346

FIG. 7A

IC90 (nM, mean±SD)				
OR: out of range				
		Heavy chain		
		36HCM1	40HCM1	42HCM1
Light chain	36LM1	OR	OR	28.173±18.382
	40LM1	OR	OR	OR
	42LM1	OR	OR	OR
		Heavy chain		
		36HKK1	36HKK2	36HKK3
Light chain	36LK1	34.300±12.049	21.040±12.576	6.957±1.059
	36LK2	OR	OR	16.360±4.492
	36LK3	8.75±1.121	5.613±0.882	4.130±1.769
		Heavy chain		
		42HKK1	42HKK2	42HKK3
Light chain	42LK1	OR	OR	OR
	42LK2	OR	OR	OR
	42LK3	40.74	53.08	OR
		Heavy chain		
		42HKK1	42HKK2	42HKK3
Light chain	36LK1	8.74	44.04	15.99
	36LK2	14.31	25.33	18.65
	36LK3	4.857±0.403	6.540±2.040	5.647±1.107
		Heavy chain		
		36HKK3	36HC2	36HC3
Light chain	36LK3	4.376±0.651	4.564±1.928	4.603±1.521
	36LC3	4.327±0.816	5.251±0.591	6.339±0.614

FIG. 7B

IC95 (nM, mean±SD)				
OR: out of range				
		Heavy chain		
		36HCM1	40HCM1	42HCM1
Light chain	36LM1	OR	OR	OR
	40LM1	OR	OR	OR
	42LM1	OR	OR	OR
		Heavy chain		
		36HKK1	36HKK2	36HKK3
Light chain	36LK1	OR	OR	OR
	36LK2	OR	OR	OR
	36LK3	OR	OR	7.587±3.511
		Heavy chain		
		42HKK1	42HKK2	42HKK3
Light chain	42LK1	OR	OR	OR
	42LK2	OR	OR	OR
	42LK3	OR	OR	OR
		Heavy chain		
		42HKK1	42HKK2	42HKK3
Light chain	36LK1	OR	OR	OR
	36LK2	32.31	54.83	60.93
	36LK3	9.020±0.762	15.337±9.599	10.780±3.938
		Heavy chain		
		36HKK3	36HC2	36HC3
Light chain	36LK3	6.886±1.274	8.972±4.417	8.381±4.053
	36LC3	9.747±3.758	(11.77, >66.7, 10.33)	OR

FIG. 7C

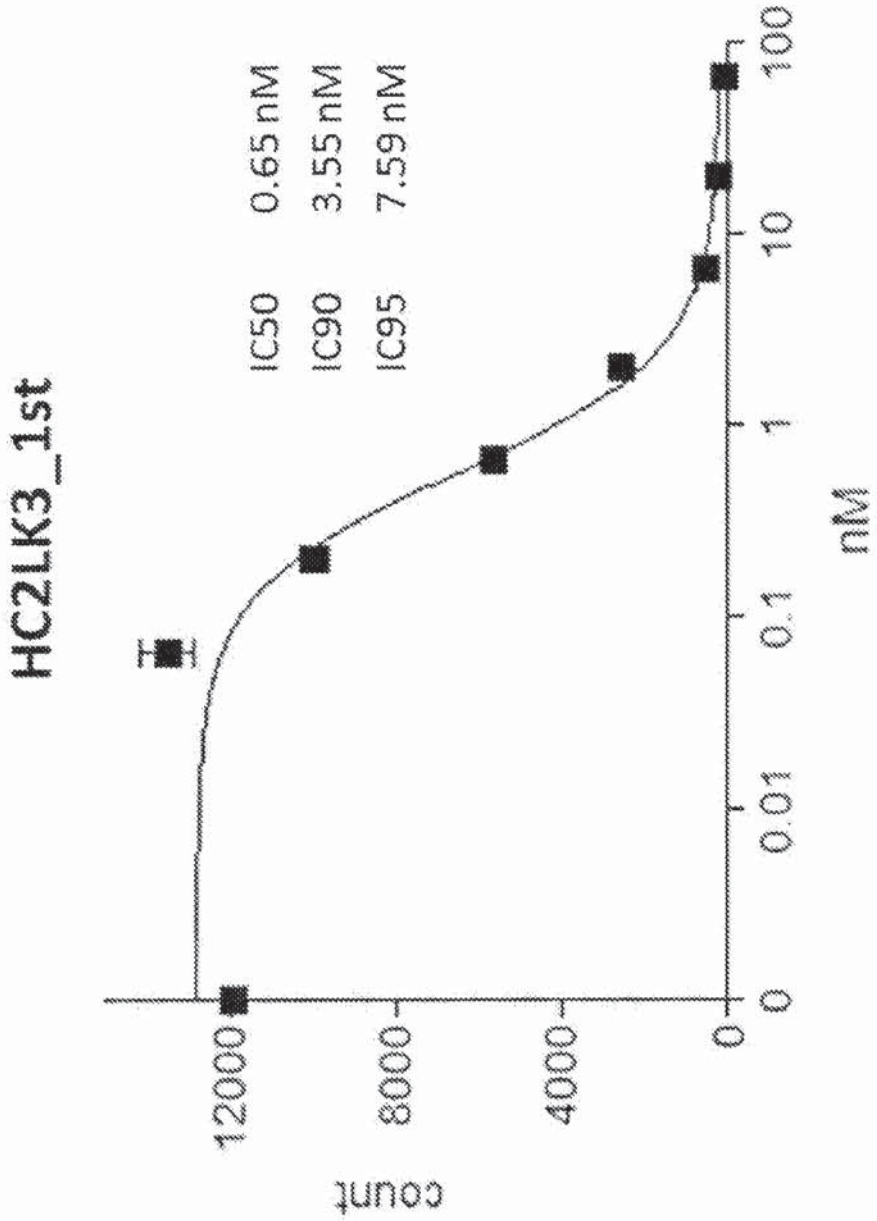

HC2LK3_1st
IC50 0.65 nM
IC90 3.55 nM
IC95 7.59 nM
count
12000
8000
4000
0
0
0.01
0.1
1
10
100
nM

FIG. 8A

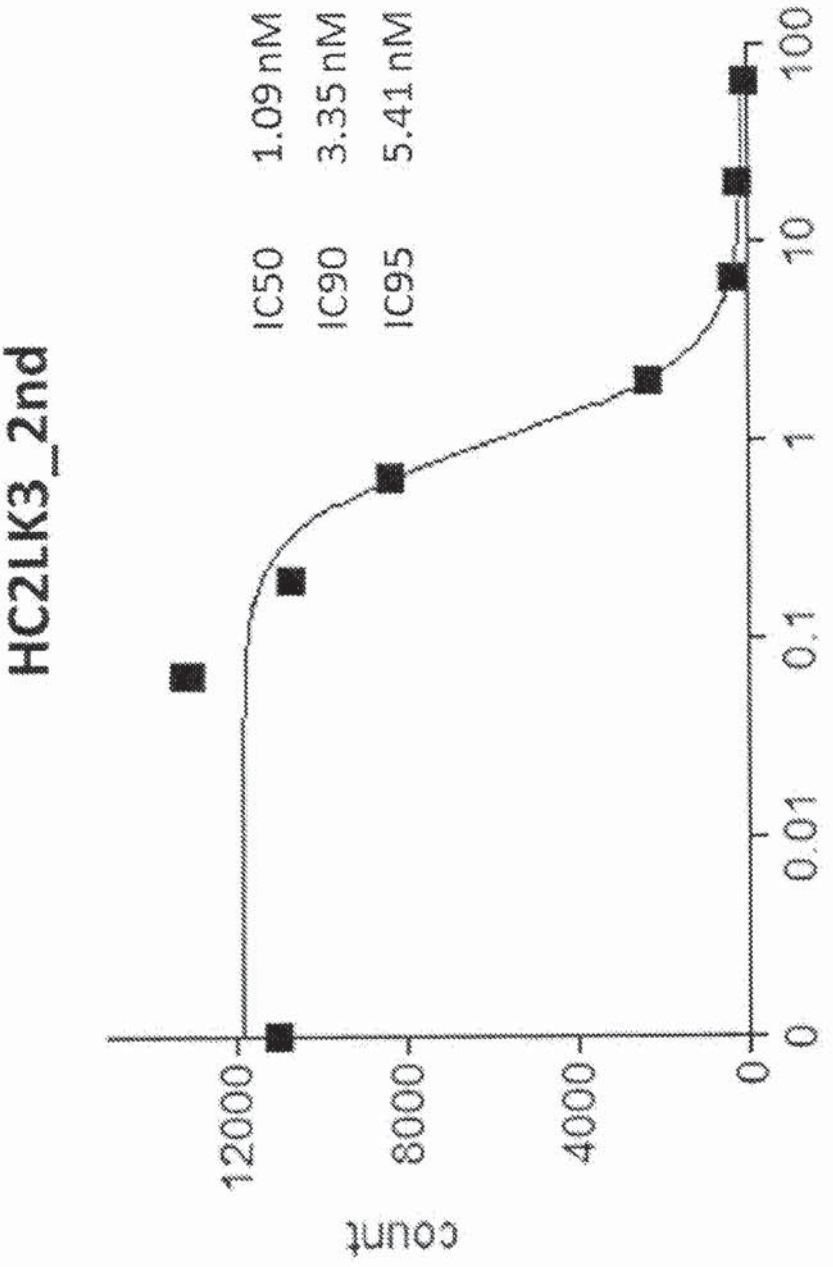

HC2LK3_2nd
IC50 1.09 nM
IC90 3.35 nM
IC95 5.41 nM
count
12000
8000
4000
0
0
0.01
0.1
1
10
100
nM

FIG. 8B

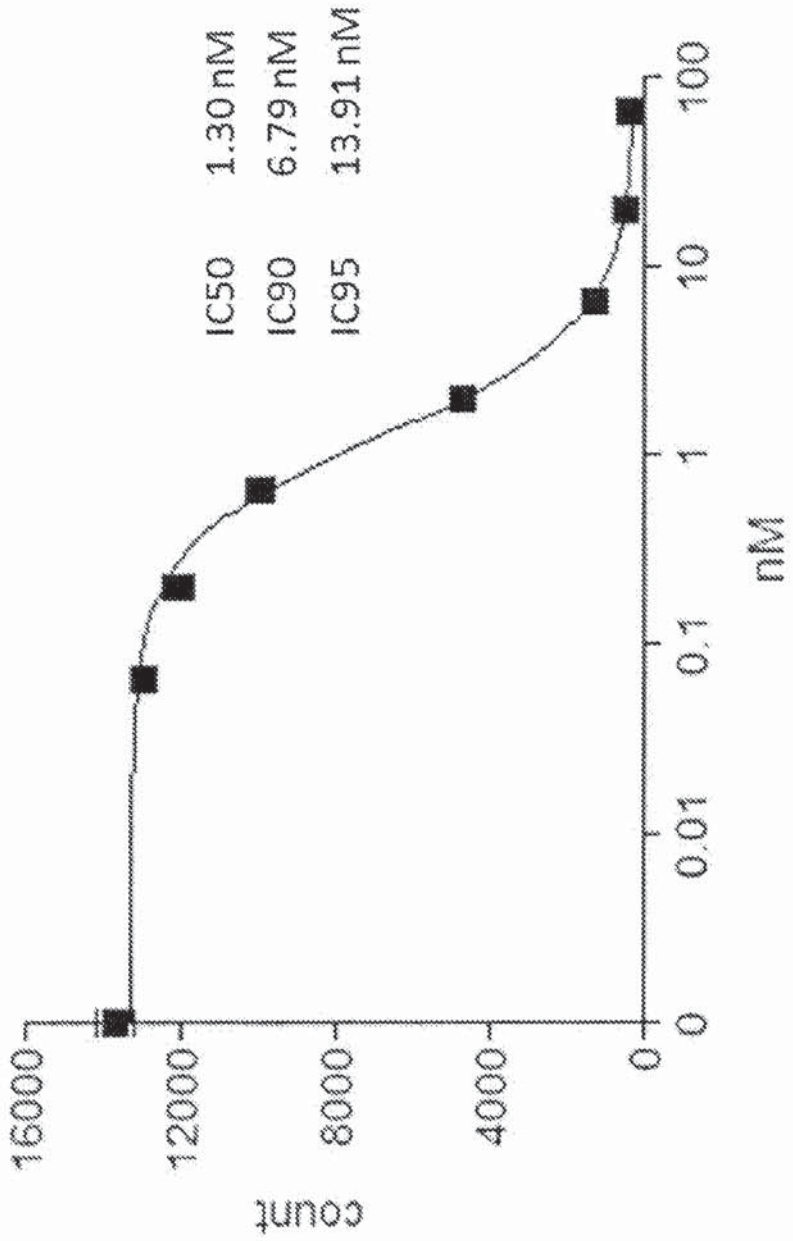

HC2LK3_3rd
IC50 1.30 nM
IC90 6.79 nM
IC95 13.91 nM
count
16000
12000
8000
4000
0
0
0.01
0.1
1
10
100
nM

FIG. 8C

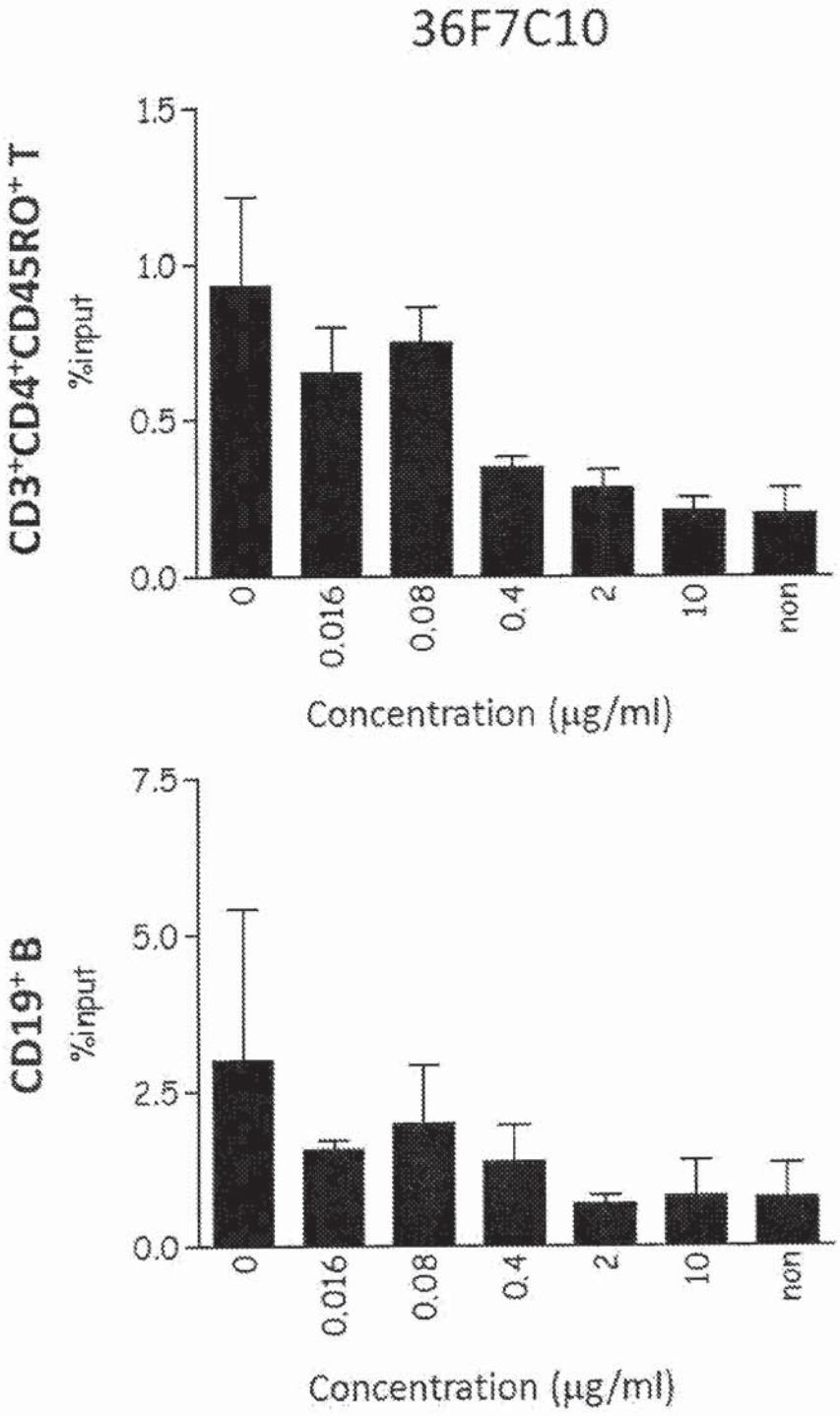

36F7C10
CD3+CD4+CD45RO+ T
%input
1.5
1.0
0.5
0.0
0
0.016
0.08
0.4
2
10
non
Concentration (μg/ml)
CD19+ B
%input
7.5
5.0
2.5
0.0
0
0.016
0.08
0.4
2
10
non
Concentration (μg/ml)

FIG. 9A

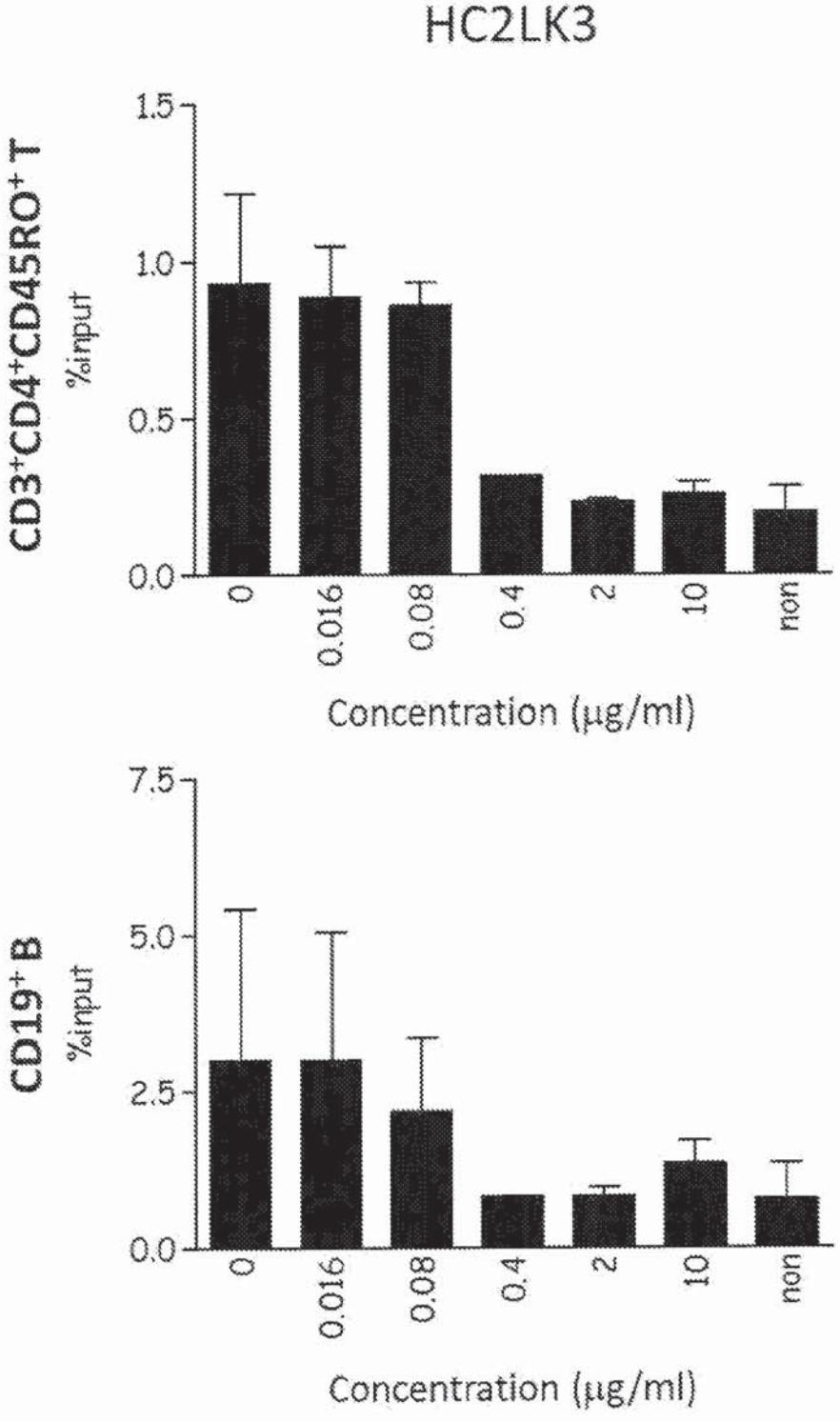

HC2LK3
CD3+CD4+CD45RO+ T
%input
1.5
1.0
0.5
0.0
0
0.016
0.08
0.4
2
10
non
Concentration (μg/ml)
CD19+ B
%input
7.5
5.0
2.5
0.0
0
0.016
0.08
0.4
2
10
non
Concentration (μg/ml)

FIG. 9B

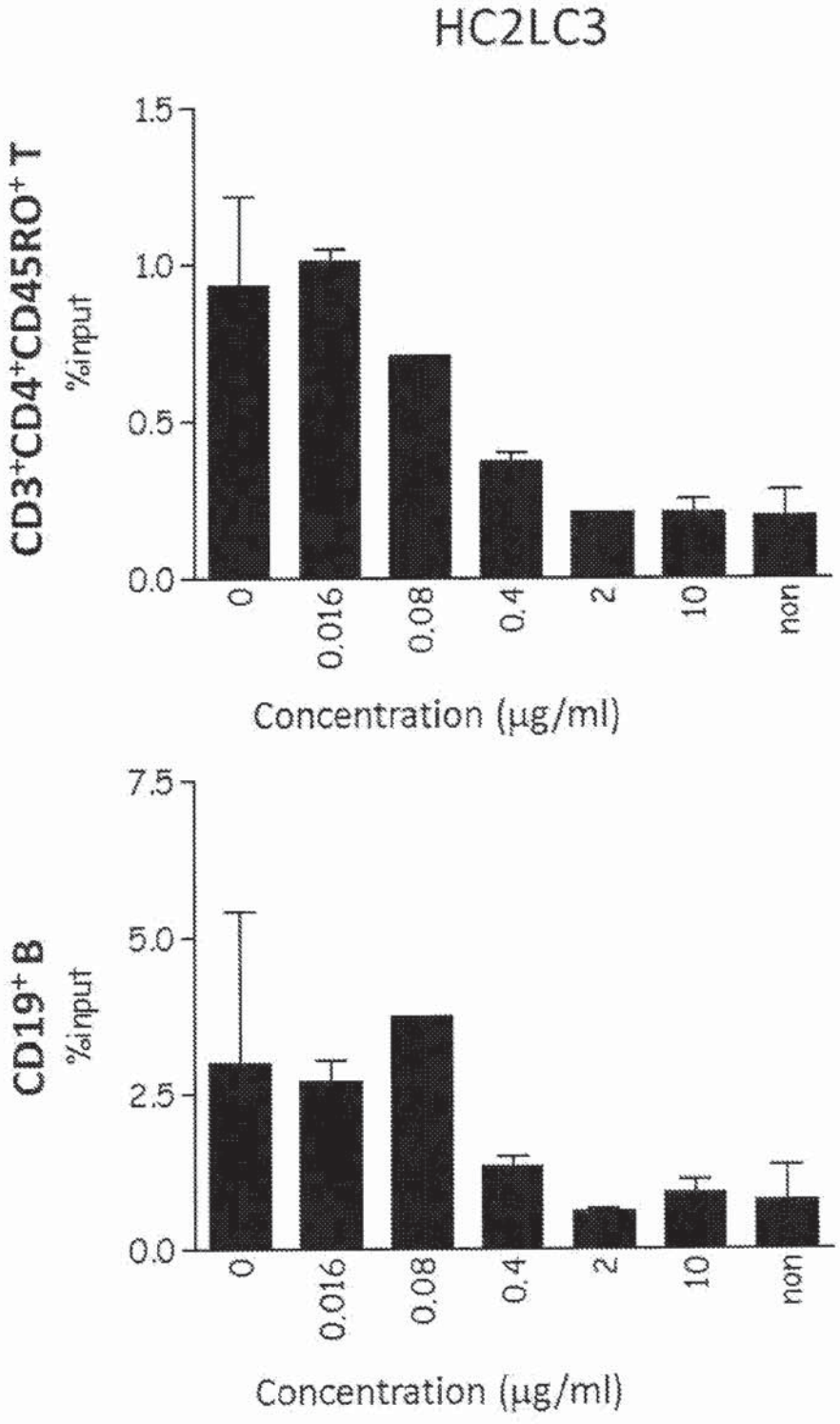

HC2LC3
CD3+CD4+CD45RO+ T
%input
1.5
1.0
0.5
0.0
0
0.016
0.08
0.4
2
10
non
Concentration (μg/ml)
CD19+ B
%input
7.5
5.0
2.5
0.0
0
0.016
0.08
0.4
2
10
non
Concentration (μg/ml)

FIG. 9C

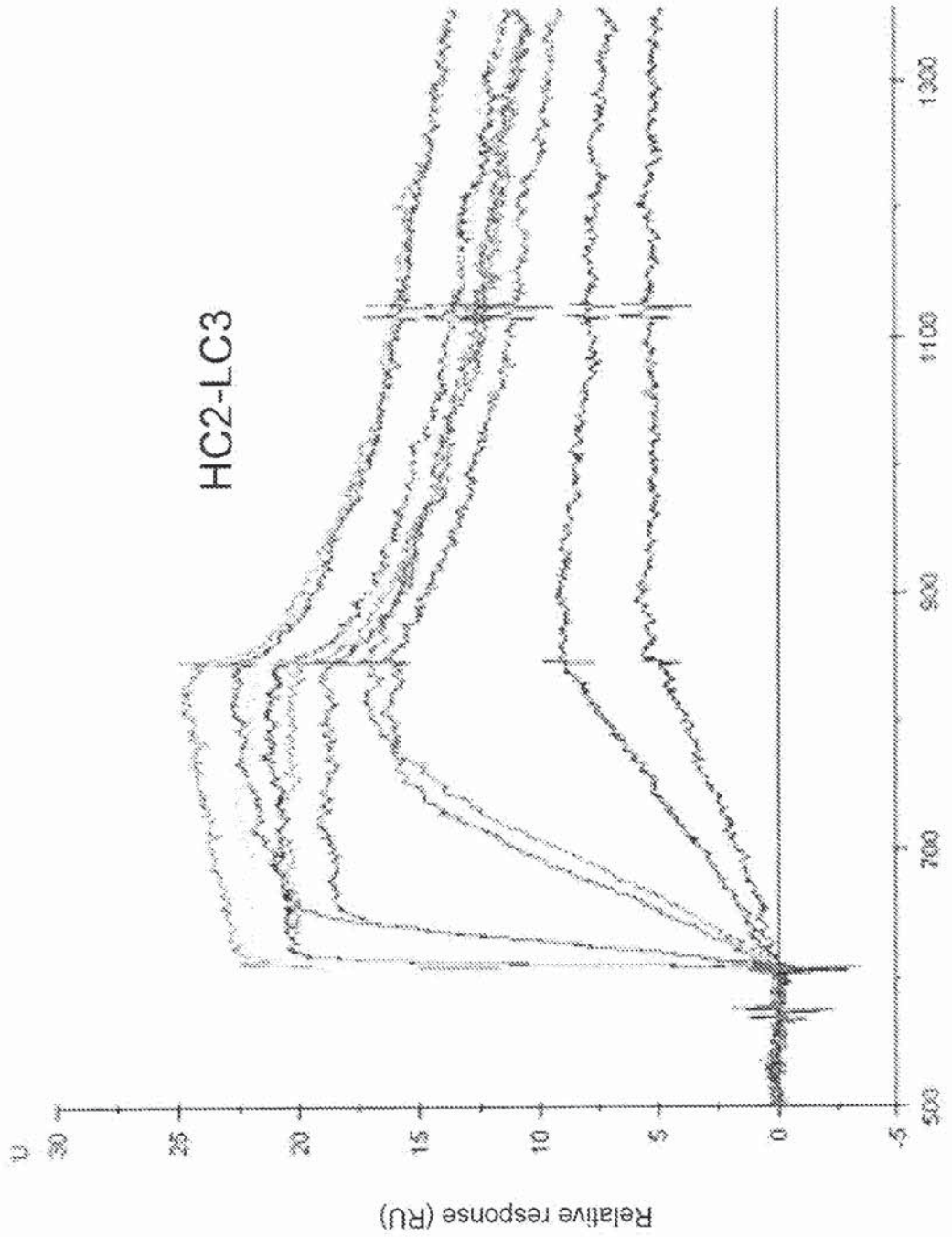

HC2-LC3
Relative response (RU)
30
25
20
15
10
5
0
-5
500
700
900
1100
1300
Time (sec)

FIG. 10A

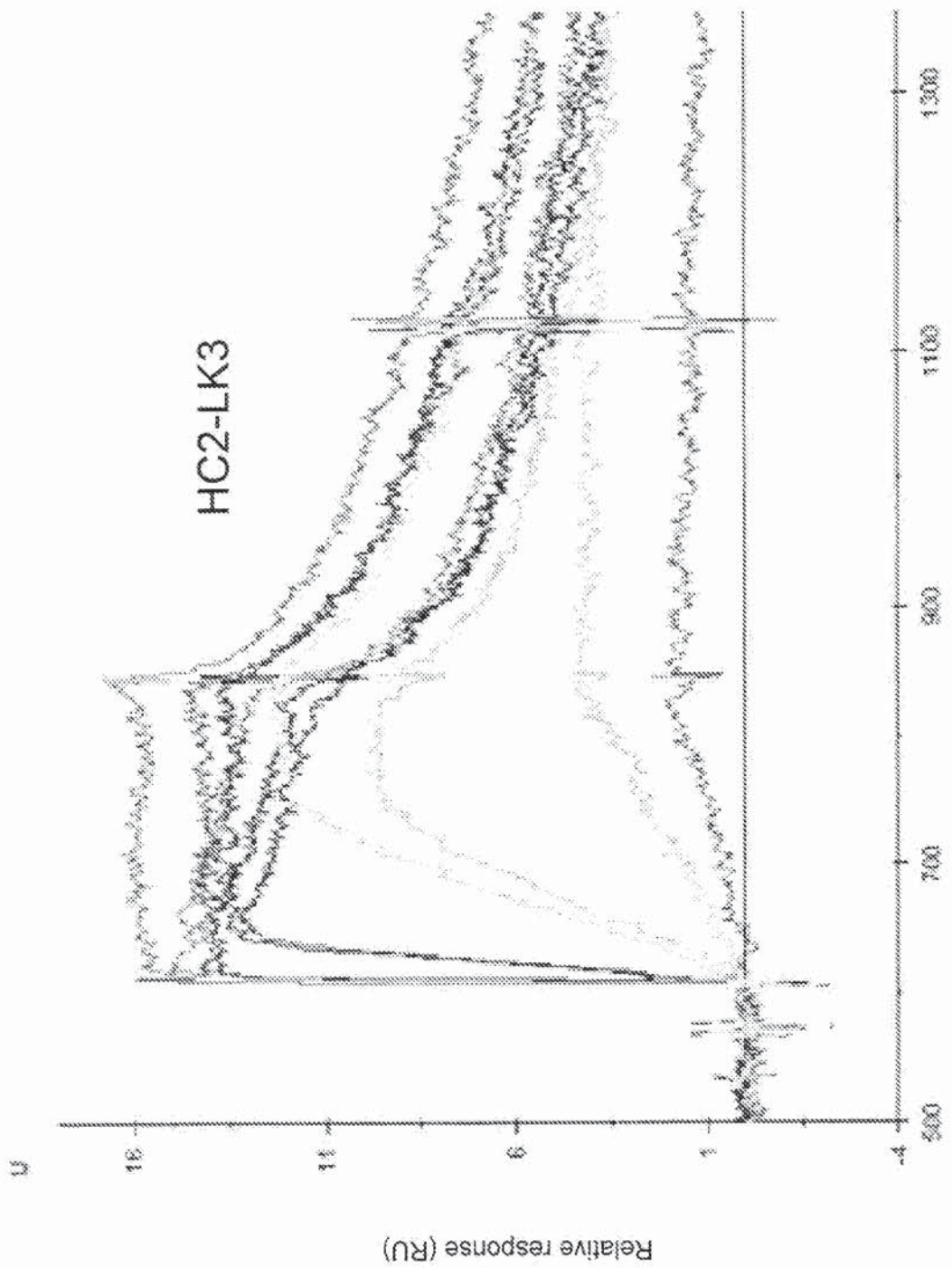

HC2-LK3
Relative response (RU)
Time (sec)
16
11
6
1
-4
500
700
900
1100
1300

FIG. 10B

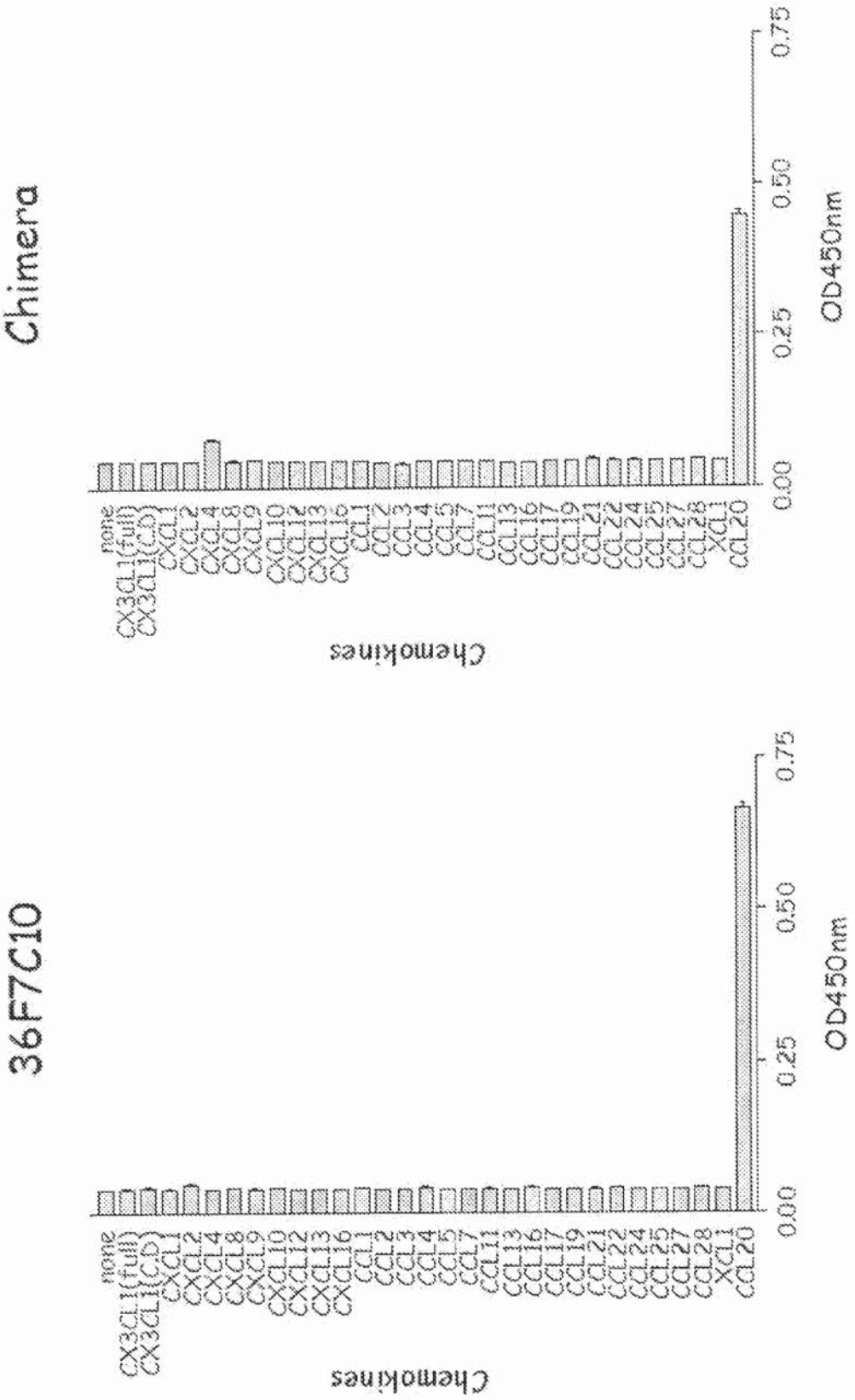

36F7C10
Chimera
Chemokines
none
CX3CL1(full)
CX3CL1(CD)
CXCL1
CXCL2
CXCL4
CXCL8
CXCL9
CXCL10
CXCL12
CXCL13
CXCL16
CCL1
CCL2
CCL3
CCL4
CCL5
CCL7
CCL11
CCL13
CCL16
CCL17
CCL19
CCL21
CCL22
CCL24
CCL25
CCL27
CCL28
XCL1
CCL20
0.00
0.25
0.50
0.75
OD450nm

FIG. 11A

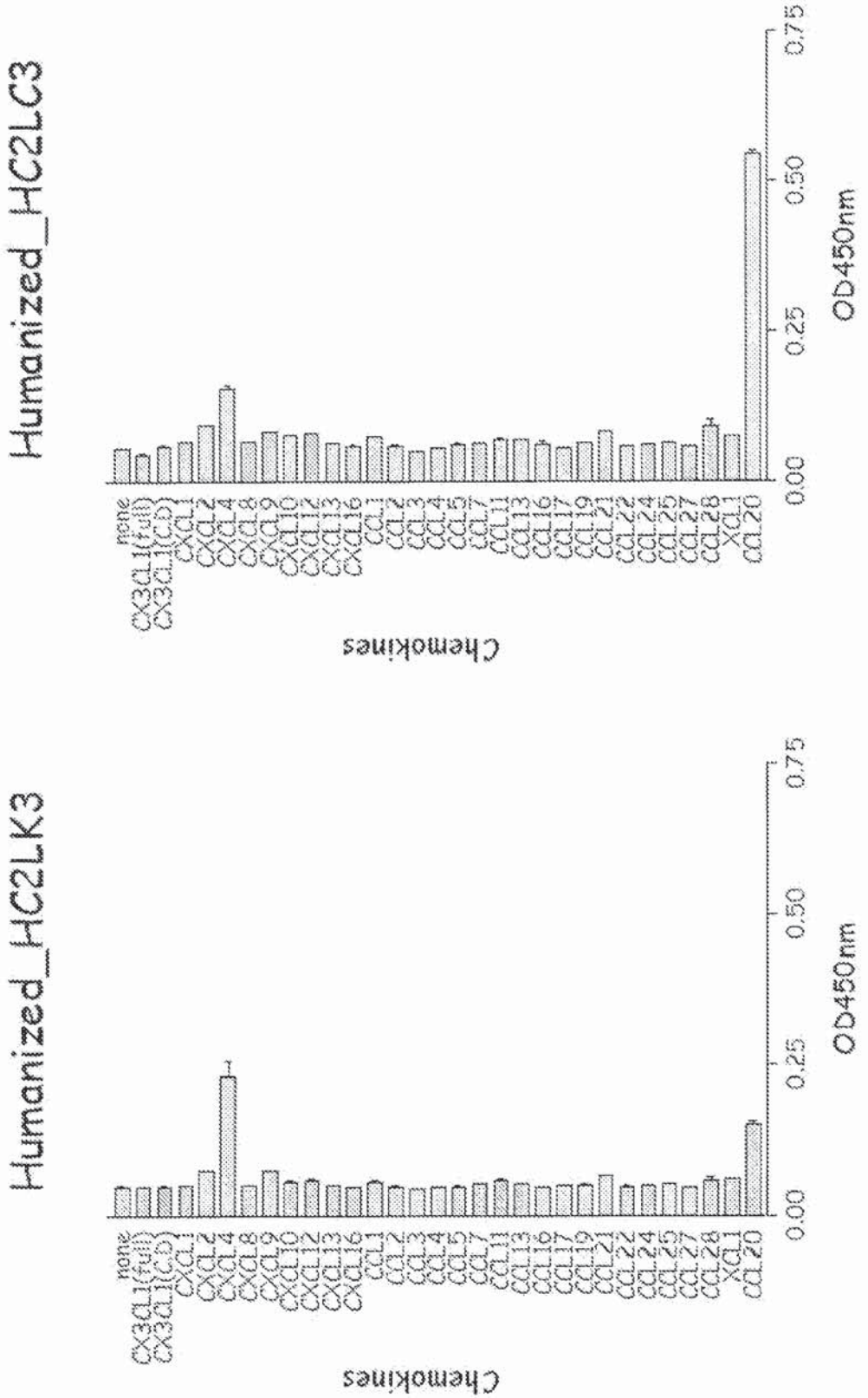

Humanized_HC2LK3
Humanized_HC2LC3
Chemokines
OD450nm
0.00
0.25
0.50
0.75
none
CX3CL1(Full)
CX3CL1(CD)
CXCL1
CXCL2
CXCL4
CXCL8
CXCL9
CXCL10
CXCL12
CXCL13
CXCL16
CCL1
CCL2
CCL3
CCL4
CCL5
CCL7
CCL11
CCL13
CCL16
CCL17
CCL19
CCL21
CCL22
CCL24
CCL25
CCL27
CCL28
XCL1
CCL20

FIG. 11B

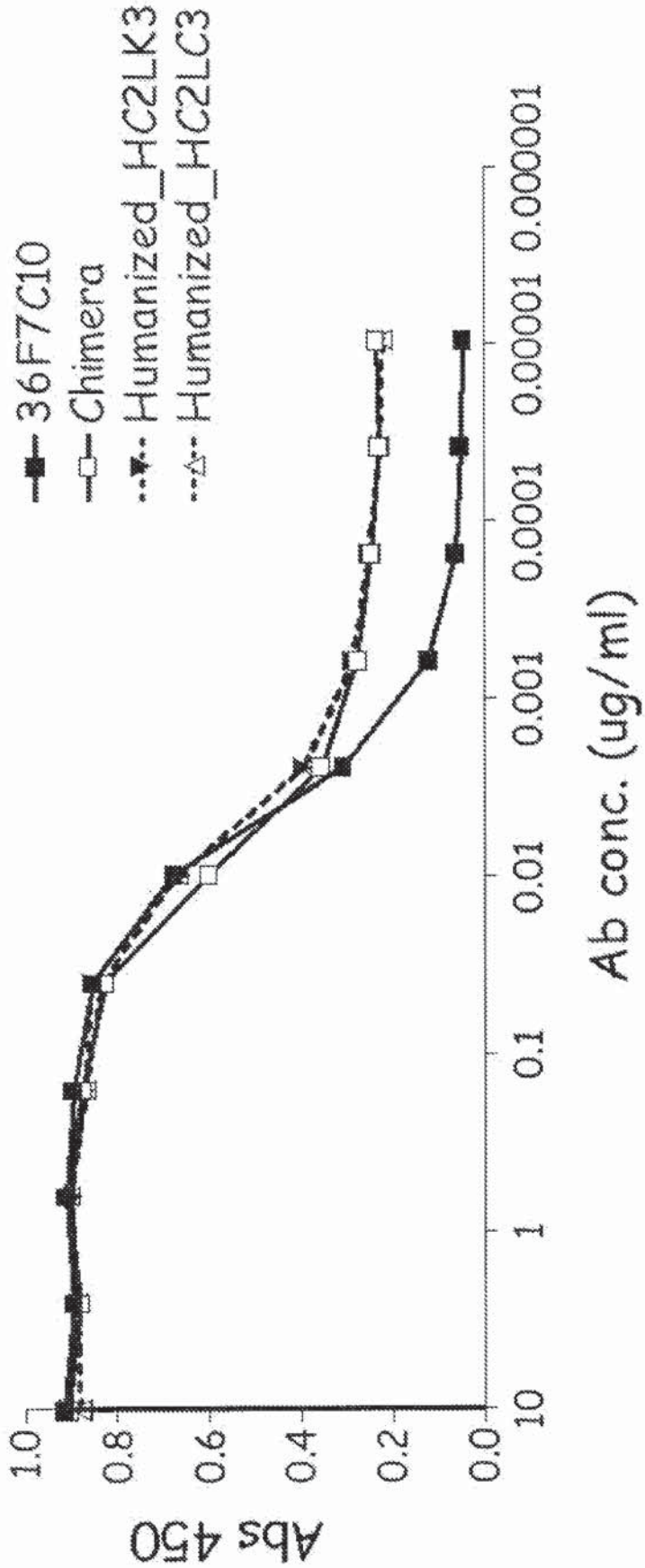

36F7C10
Chimera
Humanized_HC2LK3
Humanized_HC2LC3
Abs 450
1.0
0.8
0.6
0.4
0.2
0.0
10
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
Ab conc. (ug/ml)

FIG. 11C

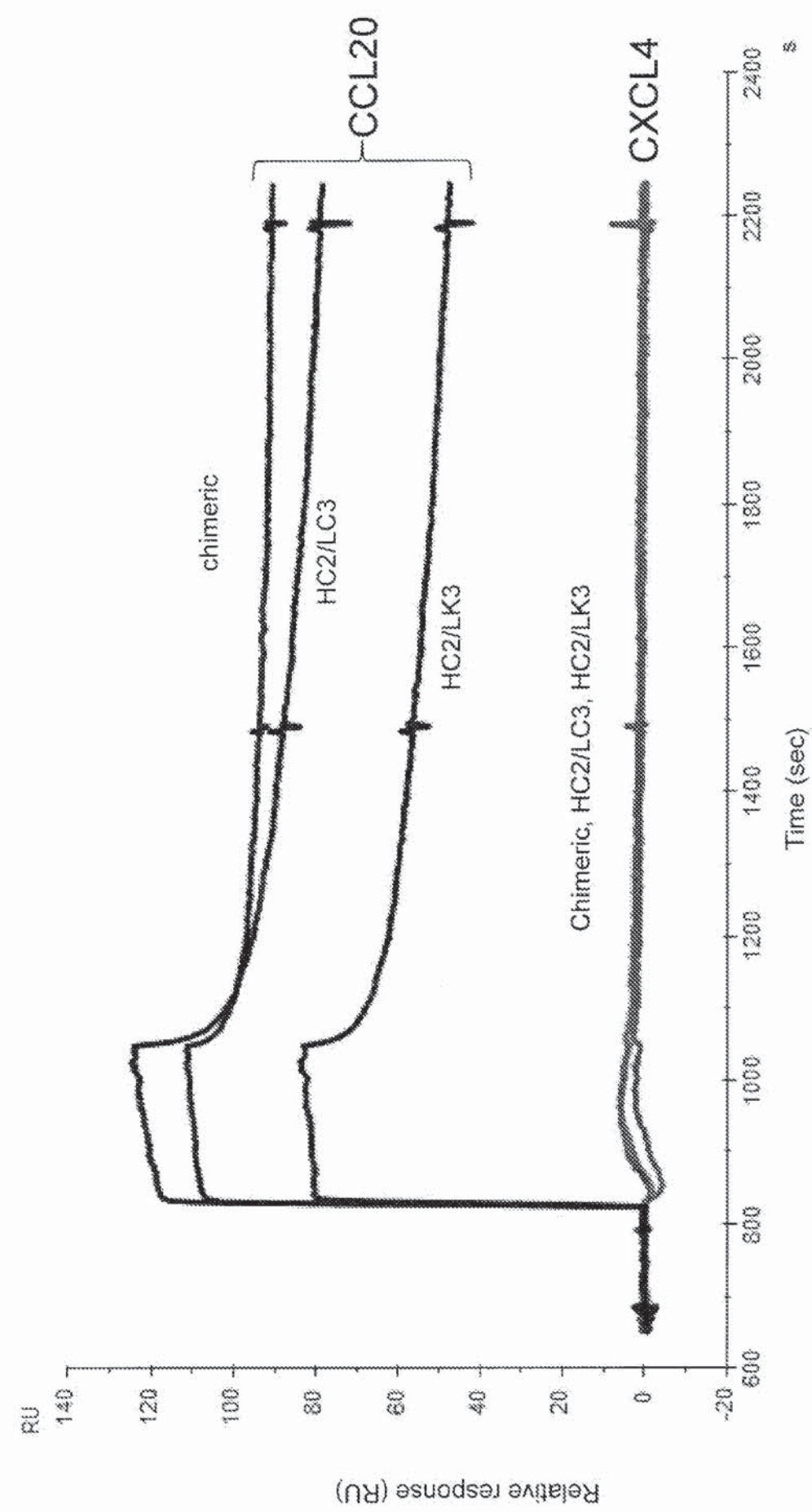

CCL20
CXCL4
chimeric
HC2/LC3
HC2/LK3
Chimeric, HC2/LC3, HC2/LK3
RU
140
120
100
80
60
40
20
0
-20
600
800
1000
1200
1400
1600
1800
2000
2200
2400
s
Time (sec)
Relative response (RU)

FIG. 11D

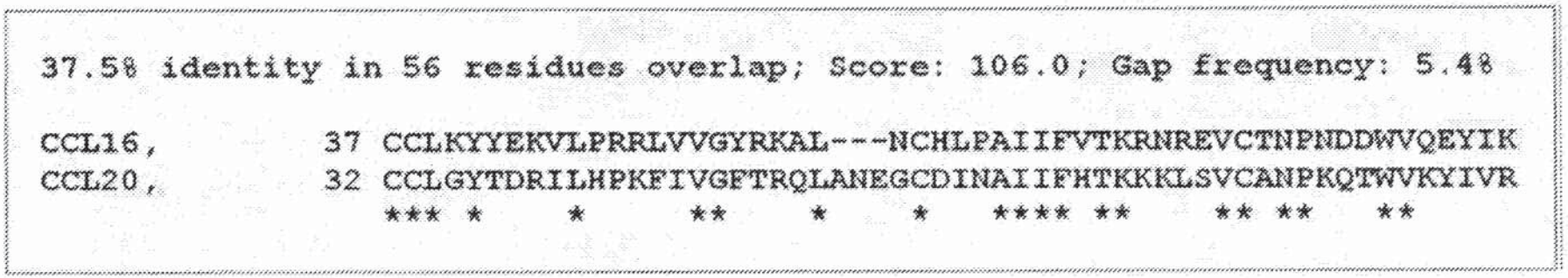

37.5% identity in 56 residues overlap; Score: 106.0; Gap frequency: 5.4%
CCL16, 37 CCLKYYEKVLPRRLVVGYRKAL---NCHLPAIIFVTKRNREVCTNPNDDWVQEYIK
CCL20, 32 CCLGYTDRILHPKFIVGFTRQLANEGCDINAIIFHTKKKLSVCANPKQTWVKYIVR
*** * * ** * * **** ** ** ** **

FIG. 12

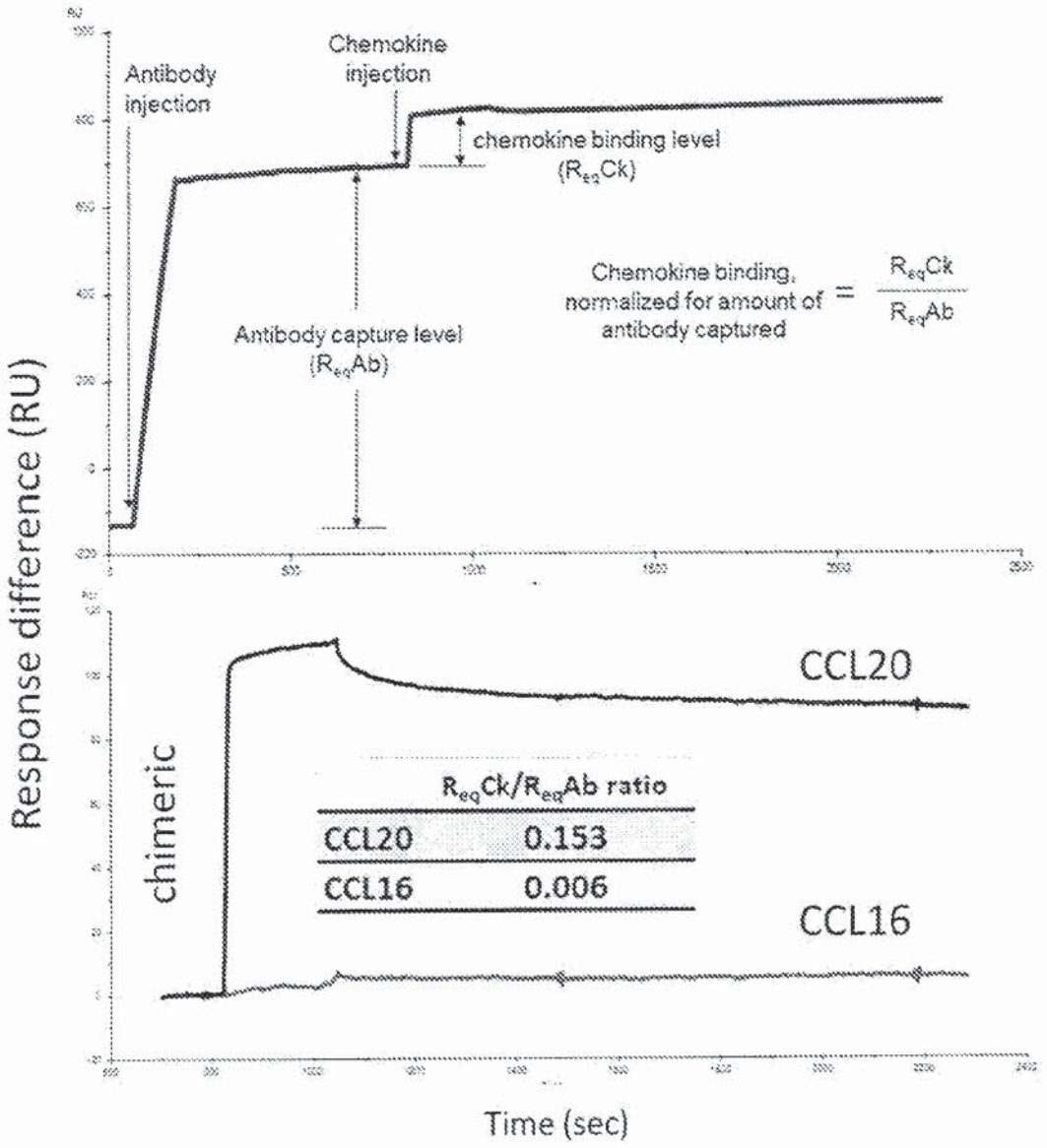

Antibody injection
Chemokine injection
chemokine binding level ($R_{eq}Ck$)
Antibody capture level ($R_{eq}Ab$)
Chemokine binding, normalized for amount of antibody captured = $\frac{R_{eq}Ck}{R_{eq}Ab}$
Response difference (RU)
chimeric
CCL20
CCL16
$R_{eq}Ck/R_{eq}Ab$ ratio
CCL20 0.153
CCL16 0.006
Time (sec)

FIG. 13A

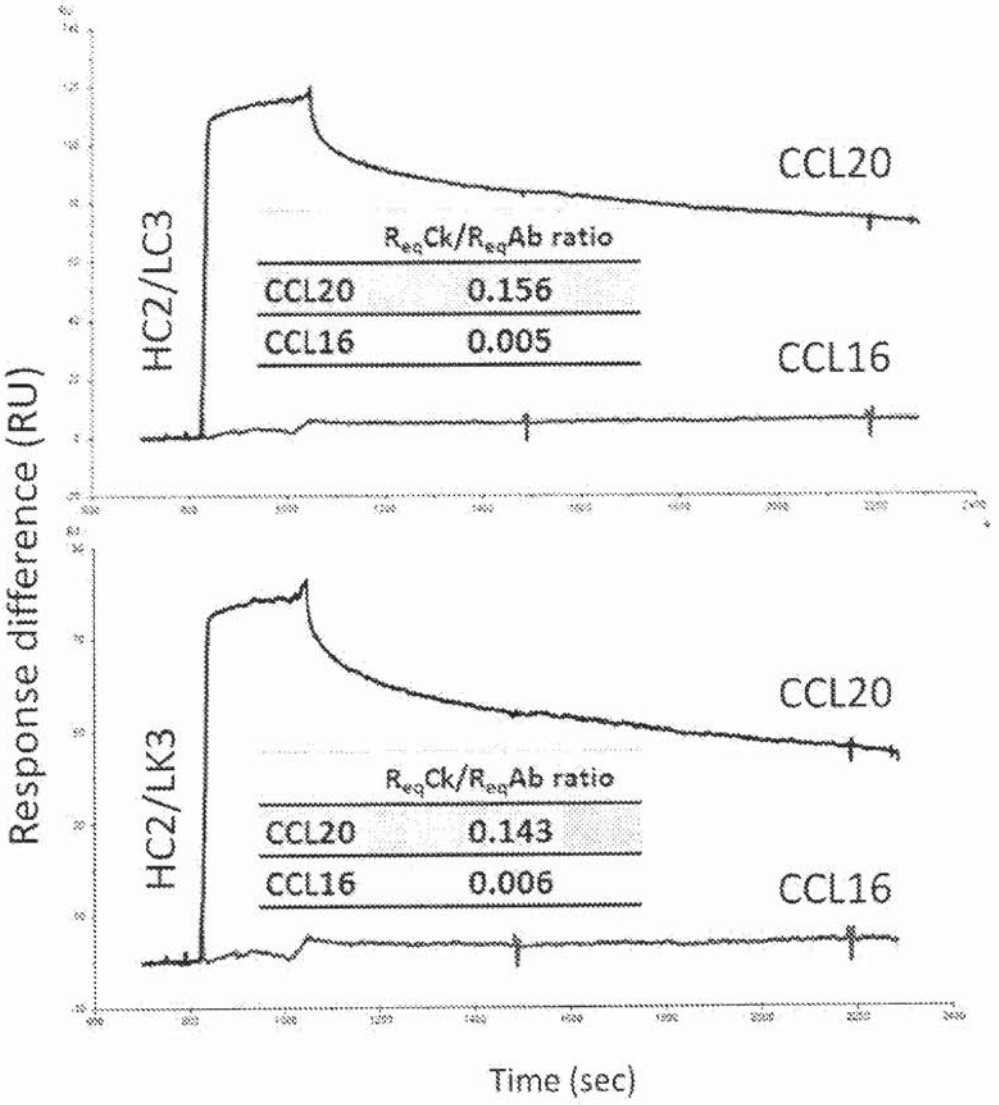

Response difference (RU)
HC2/LC3
CCL20
CCL16
R_{eq}Ck/R_{eq}Ab ratio
CCL20 0.156
CCL16 0.005
HC2/LK3
CCL20
CCL16
R_{eq}Ck/R_{eq}Ab ratio
CCL20 0.143
CCL16 0.006
Time (sec)

FIG. 13B

```
86.5% identity in 96 residues overlap; Score: 441.0; Gap frequency: 0.0%

hum_CCL20         1 MCCTKSLLLAALMSVLLLHLCGESEAASNFDCCLGYTDRILHPKFIVGFTRQLANEGCDI
rhe_CCL20         1 MCCTKSLLLAALMSVLLLYLCSESEAASNFDCCLRYTDRILHPKFIVGFTQQLANETCDI
                    ****************** ** ************ *************** ***** ***

hum_CCL20        61 NAIIFHTKKKLSVCANPKQTWVKYIVRLLSKKVKNM
rhe_CCL20        61 NAVVFHTKKGLSVCANPKQTWVKLIVRRLSKKINKM
                    **  ***** ************* *** ****   *
```

```
97.9% identity in 96 residues overlap; Score: 497.0; Gap frequency: 0.0%

rhe_CCL20         1 MCCTKSLLLAALMSVLLLYLCSESEAASNFDCCLRYTDRILHPKFIVGFTQQLANETCDI 60
cyn_CCL20         1 MCCSKSLLLAALMSVLLLYLCSESEAASNFDCCLRYTDRILHPKFIVGFTQQLANETCDI 60
                    *** ************************************************************

rhe_CCL20        61 NAVVFHTKKGLSVCANPKQTWVKLIVRRLSKKINKM 96
cyn_CCL20        61 NAVIFHTKKGLSVCANPKQTWVKLIVRRLSKKINKM 96
                    *** ********************************
```

```
64.2% identity in 95 residues overlap; Score: 310.0; Gap frequency: 0.0%
hum_CCL20         2 CCTKSLLLAALMSVLLLHLCGESEAASNFDCCLGYTDRILHPKFIVGFTRQLANEGCDIN
mou_CCL20         3 CGGKRLLFLALAWVLLAHLCSQAEAASNYDCCLSYIQTPLPSRAIVGFTRQMADEACDIN
                    *  * **  **  *** ***   ***** **** *    *    ******* * * ****

hum_CCL20        62 AIIFHTKKKLSVCANPKQTWVKYIVRLLSKKVKNM 96
mou_CCL20        63 AIIFHTKKRKSVCADPKQNWVKRAVNLLSLRVKKM 97
                    ********  **** *** ***  * ***  ** *
```

FIG. 14

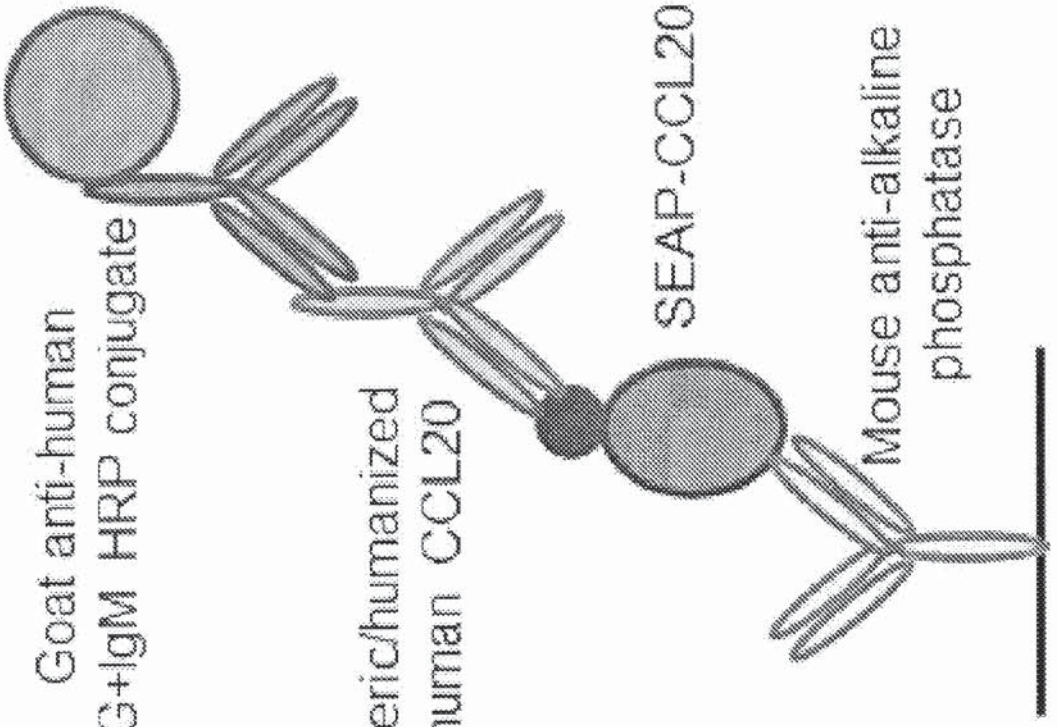

Goat anti-human
IgG+IgM HRP conjugate
Chimeric/humanized
anti-human CCL20
SEAP-CCL20
Mouse anti-alkaline
phosphatase

FIG. 15

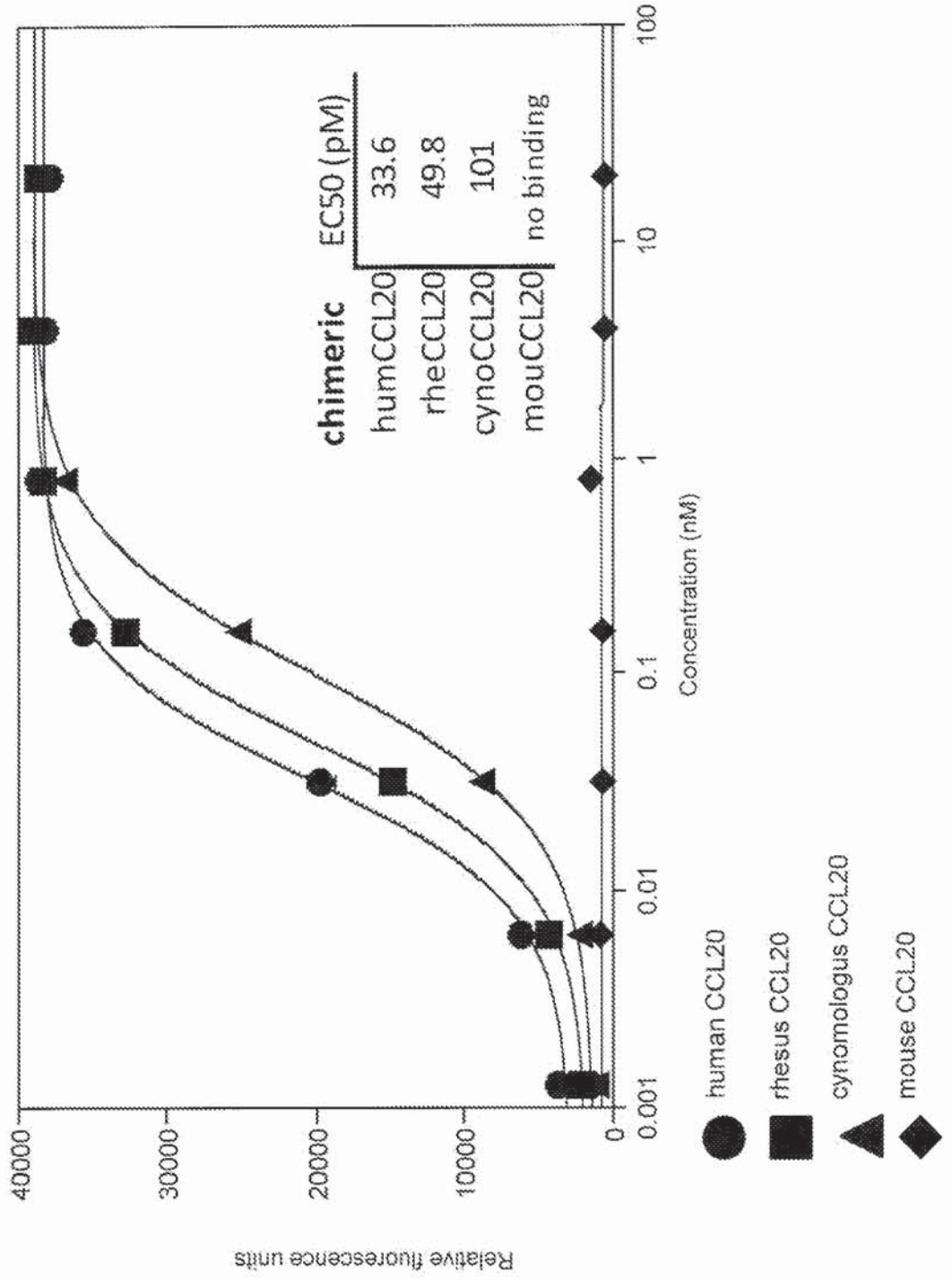

chimeric
EC50 (pM)
humCCL20
33.6
rheCCL20
49.8
cynoCCL20
101
mouCCL20
no binding
Relative fluorescence units
Concentration (nM)
human CCL20
rhesus CCL20
cynomologus CCL20
mouse CCL20

FIG. 16A

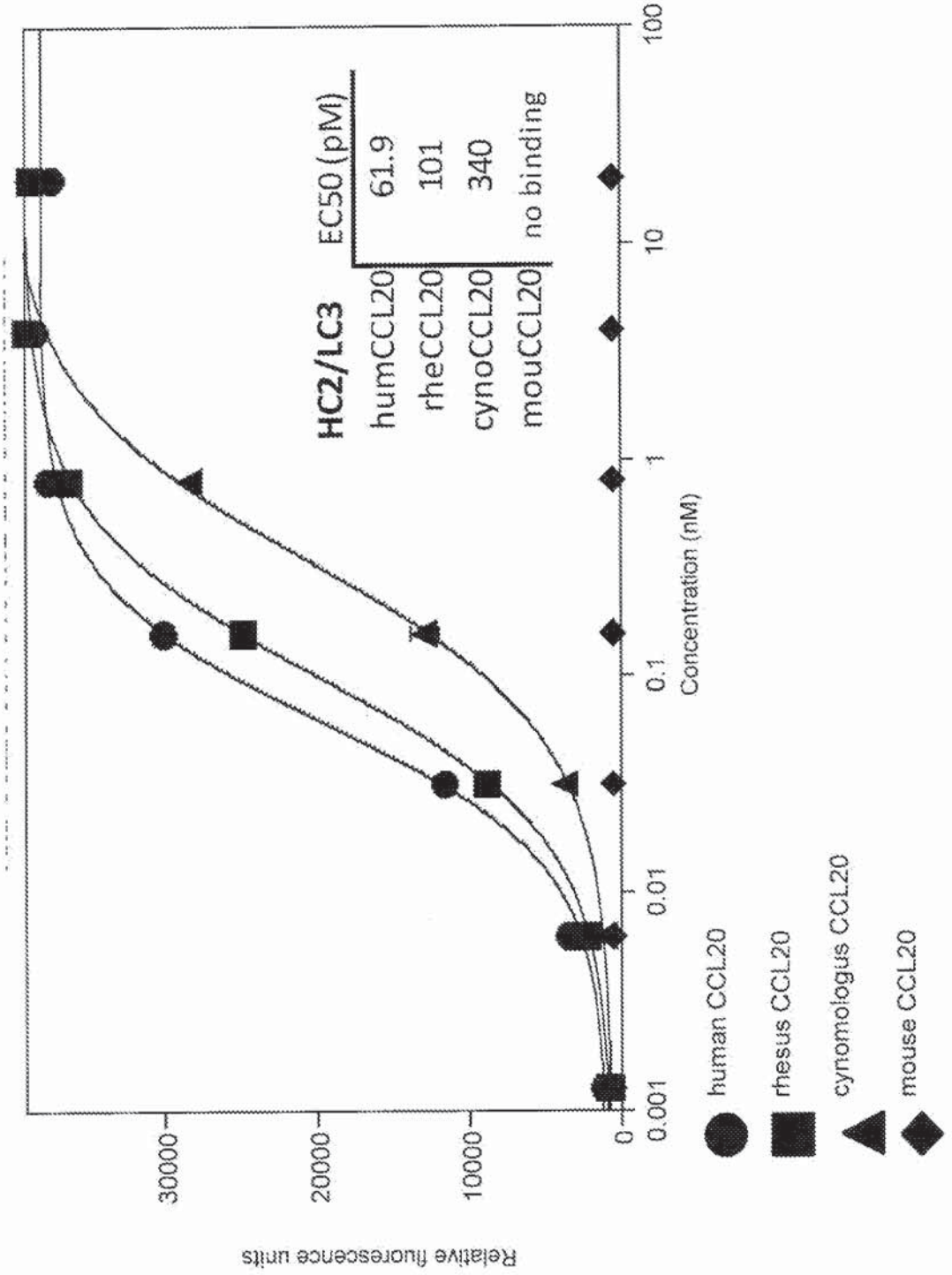

HC2/LC3
EC50 (pM)
humCCL20 61.9
rheCCL20 101
cynoCCL20 340
mouCCL20 no binding
Relative fluorescence units
30000
20000
10000
0
0.001
0.01
0.1
1
10
100
Concentration (nM)
human CCL20
rhesus CCL20
cynomologus CCL20
mouse CCL20

FIG. 16B

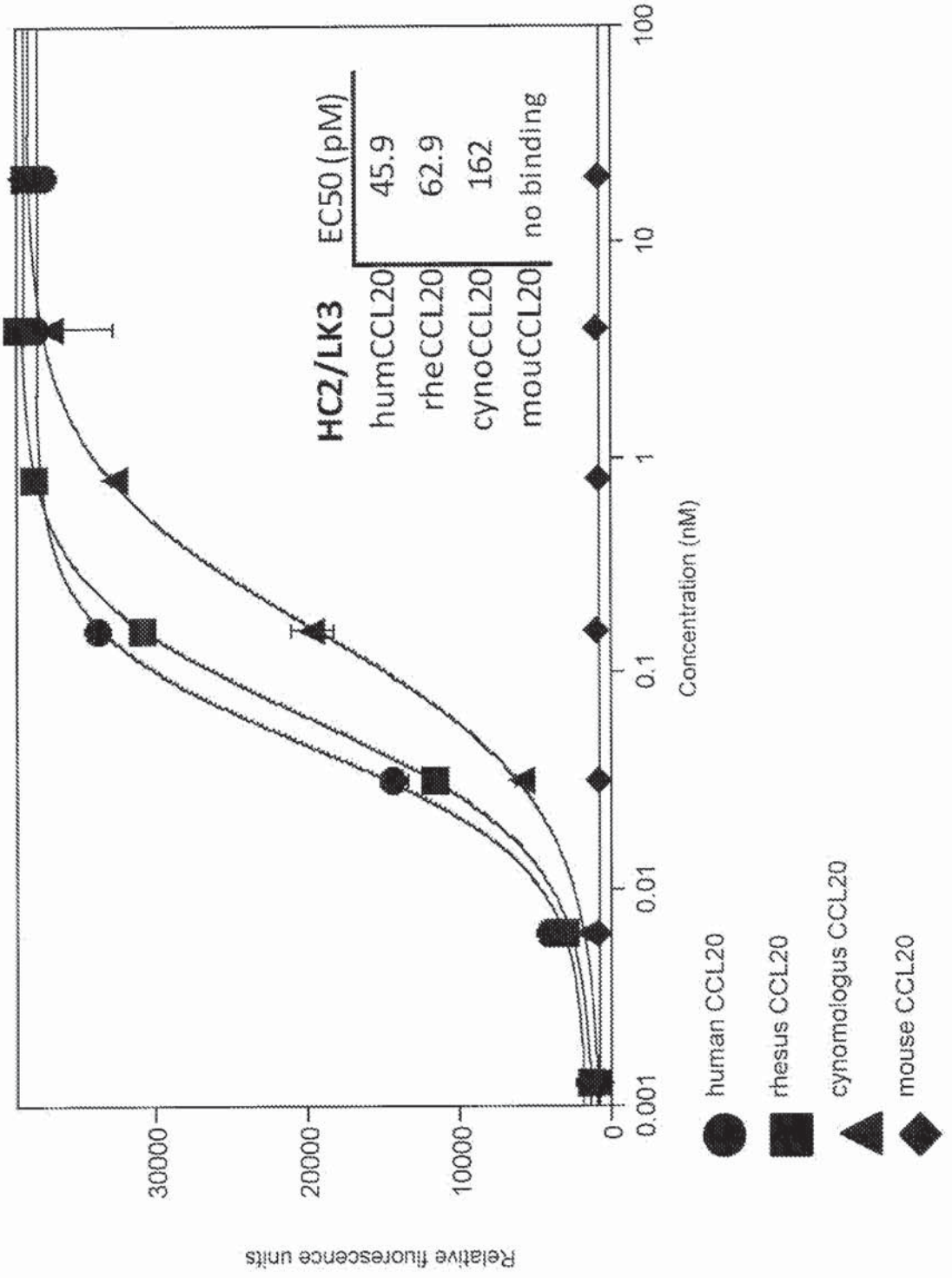
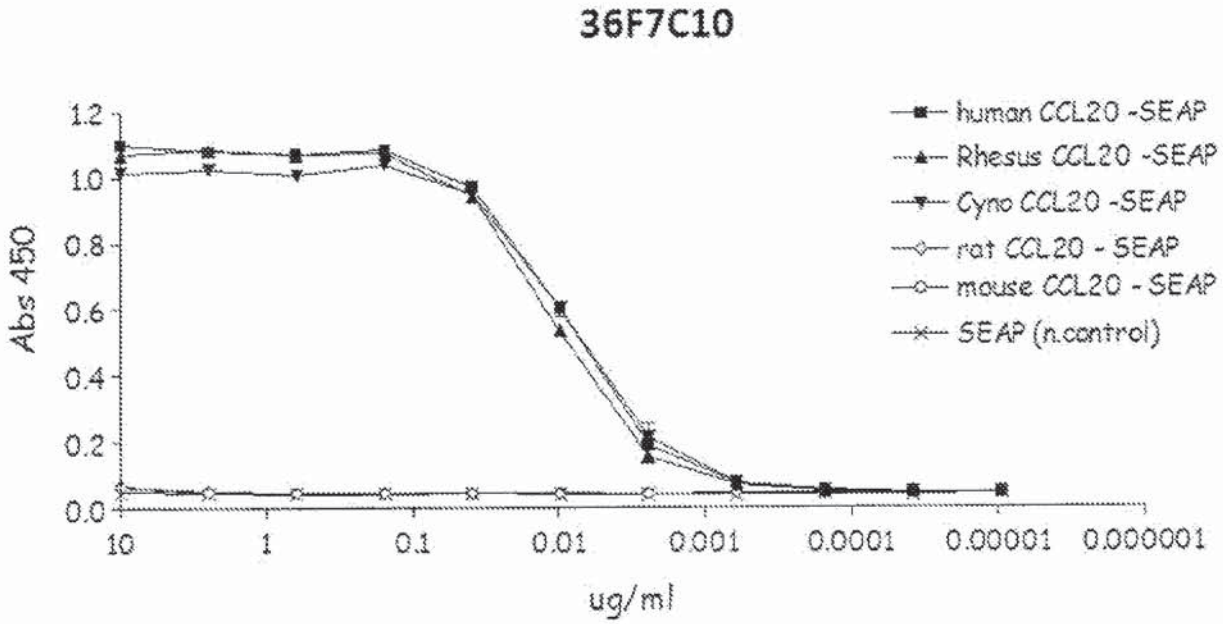

HC2/LK3
EC50 (pM)
humCCL20 45.9
rheCCL20 62.9
cynoCCL20 162
mouCCL20 no binding
Relative fluorescence units
30000
20000
10000
0
0.001
0.01
0.1
1
10
100
Concentration (nM)
human CCL20
rhesus CCL20
cynomolgus CCL20
mouse CCL20

FIG. 16C


36F7C10
Abs 450
1.2
1.0
0.8
0.6
0.4
0.2
0.0
10
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
ug/ml
human CCL20 -SEAP
Rhesus CCL20 -SEAP
Cyno CCL20 -SEAP
rat CCL20 - SEAP
mouse CCL20 - SEAP
SEAP (n.control)

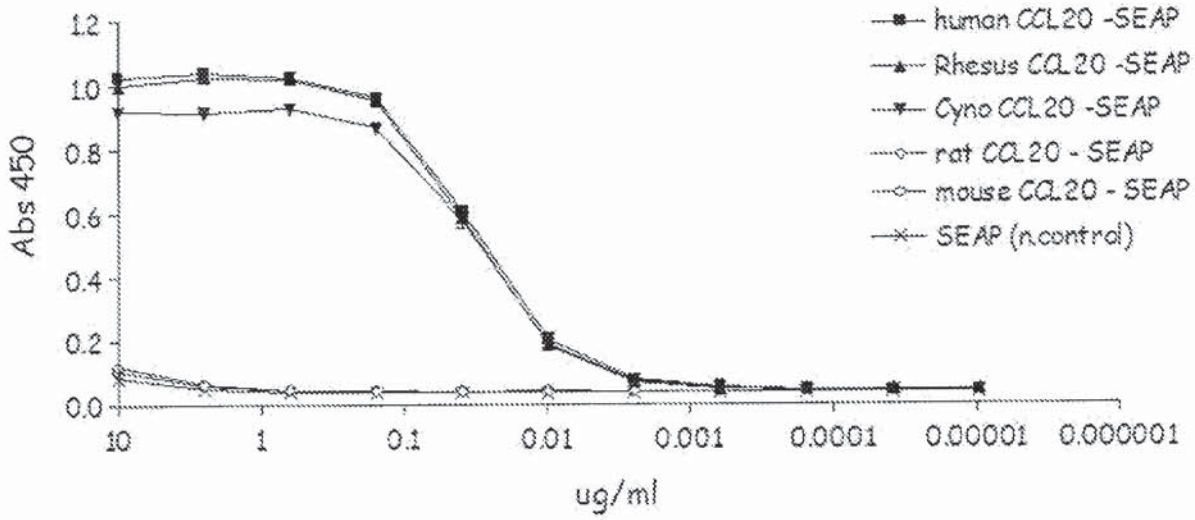
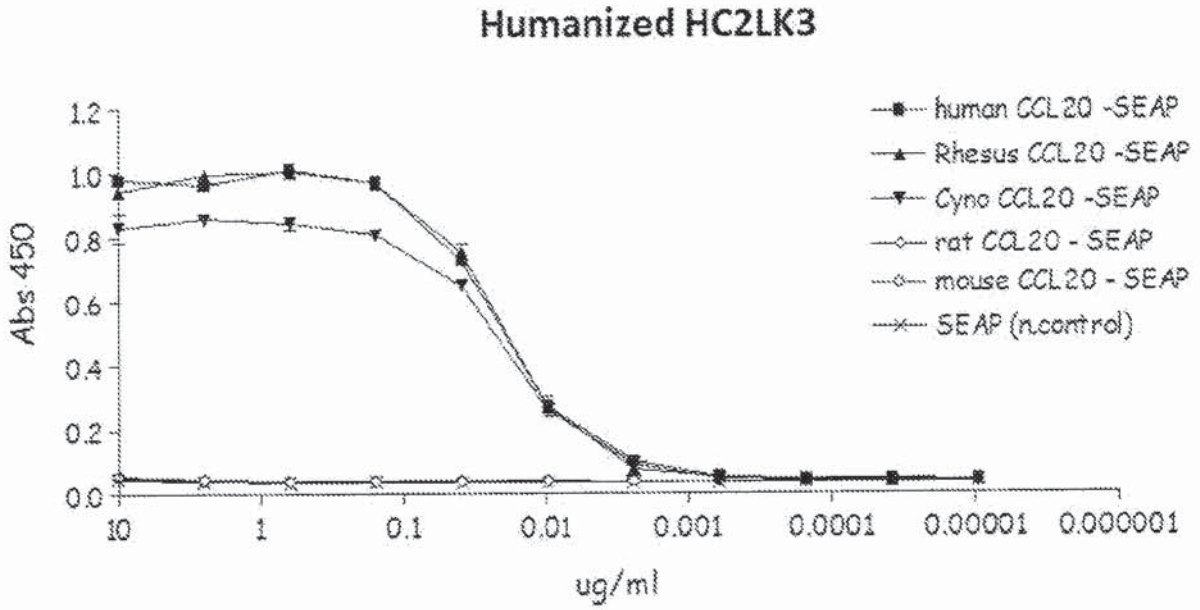

36F7C10 human Fc chimera
Abs 450
1.2
1.0
0.8
0.6
0.4
0.2
0.0
10
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
ug/ml
human CCL20 -SEAP
Rhesus CCL20 -SEAP
Cyno CCL20 -SEAP
rat CCL20 - SEAP
mouse CCL20 - SEAP
SEAP (n.control)

FIG. 17A


Humanized HC2LK3
Abs 450
1.2
1.0
0.8
0.6
0.4
0.2
0.0
10
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
ug/ml
human CCL20 -SEAP
Rhesus CCL20 -SEAP
Cyno CCL20 -SEAP
rat CCL20 - SEAP
mouse CCL20 - SEAP
SEAP (n.control)

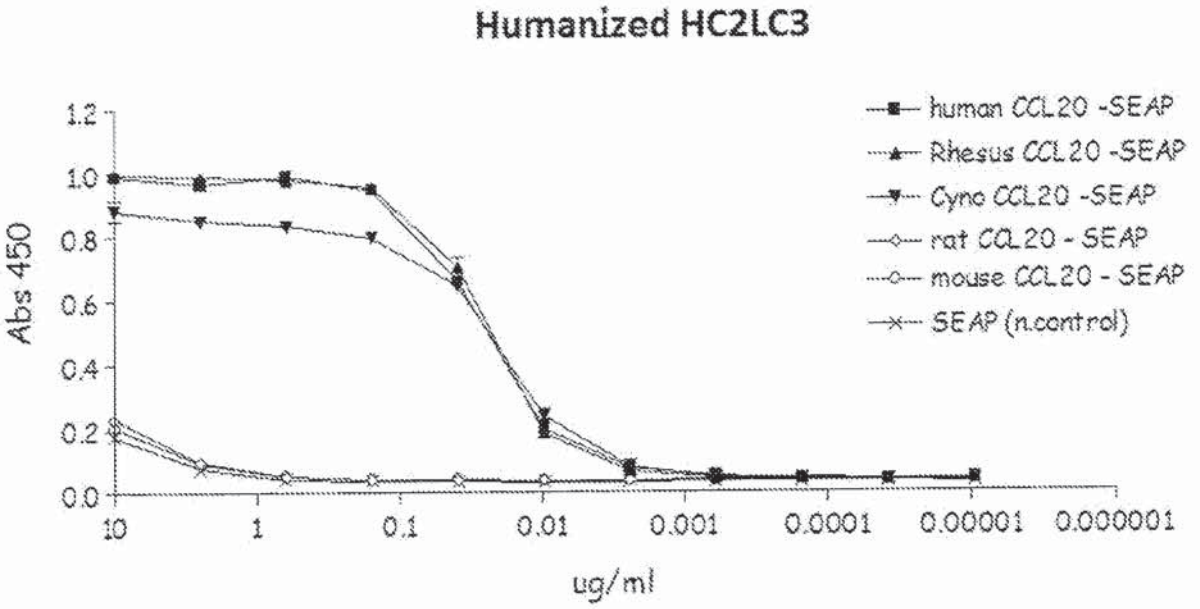

Humanized HC2LC3
Abs 450
1.2
1.0
0.8
0.6
0.4
0.2
0.0
10
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
ug/ml
human CCL20 -SEAP
Rhesus CCL20 -SEAP
Cyno CCL20 -SEAP
rat CCL20 - SEAP
mouse CCL20 - SEAP
SEAP (n.control)

FIG. 17B

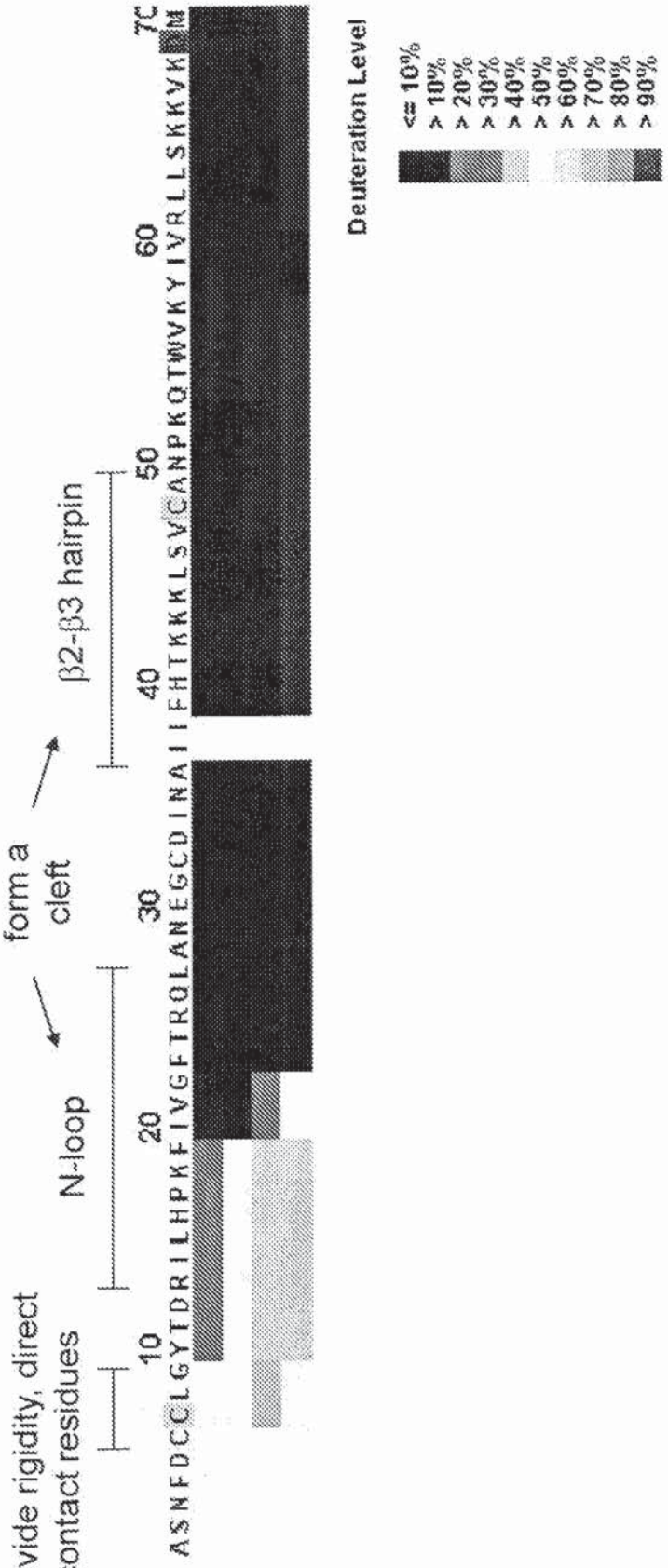

Provide rigidity, direct contact residues
N-loop
form a cleft
β2-β3 hairpin
Deuteration Level
<= 10%
> 10%
> 20%
> 30%
> 40%
> 50%
> 60%
> 70%
> 80%
> 90%

FIG. 18A

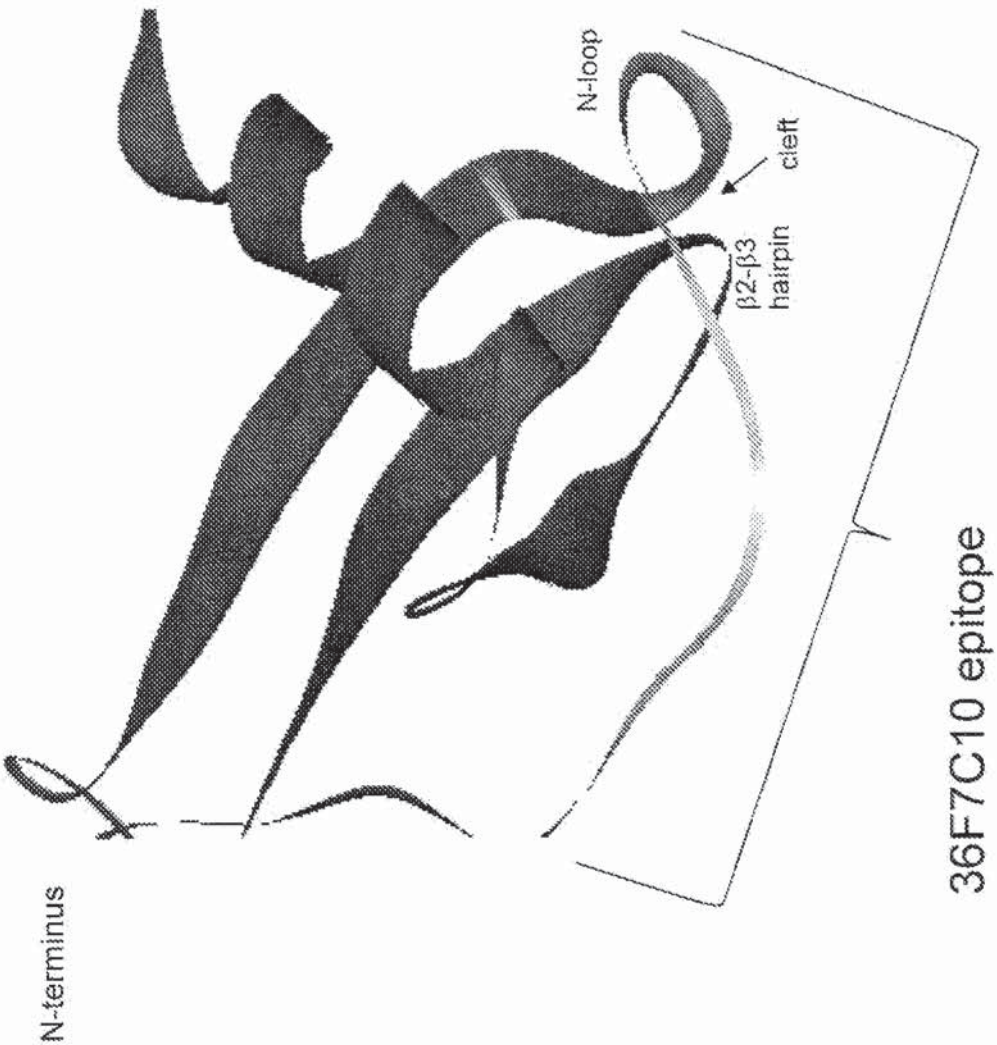
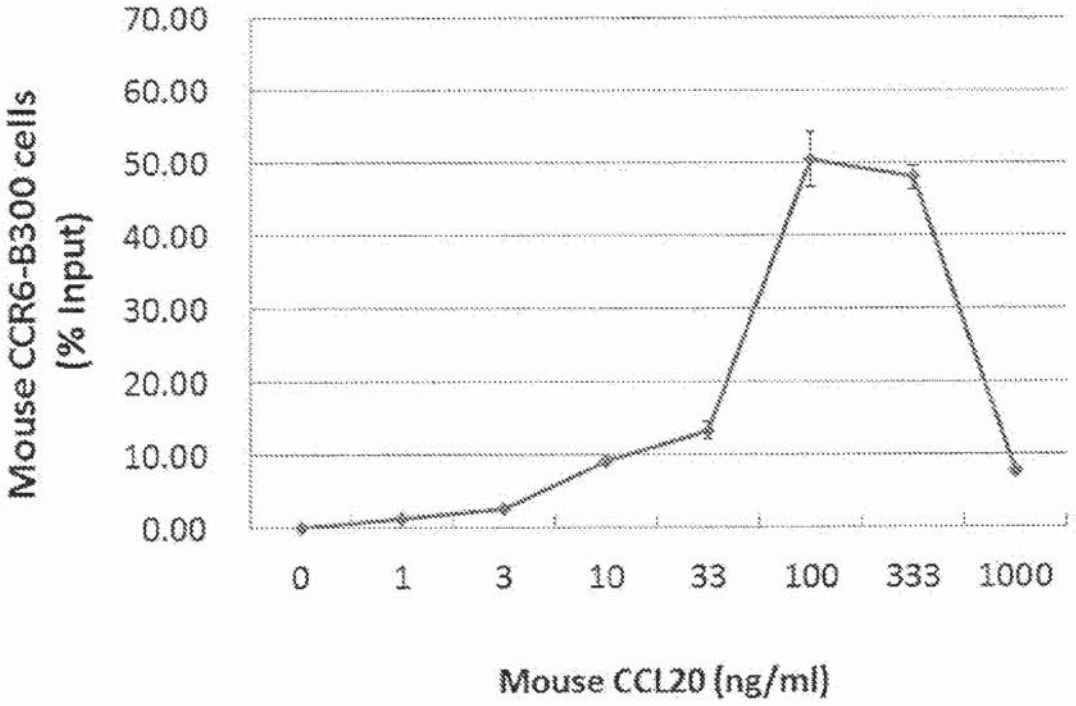


FIG. 18B


70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Mouse CCR6-B300 cells (% Input)
0
1
3
10
33
100
333
1000
Mouse CCL20 (ng/ml)

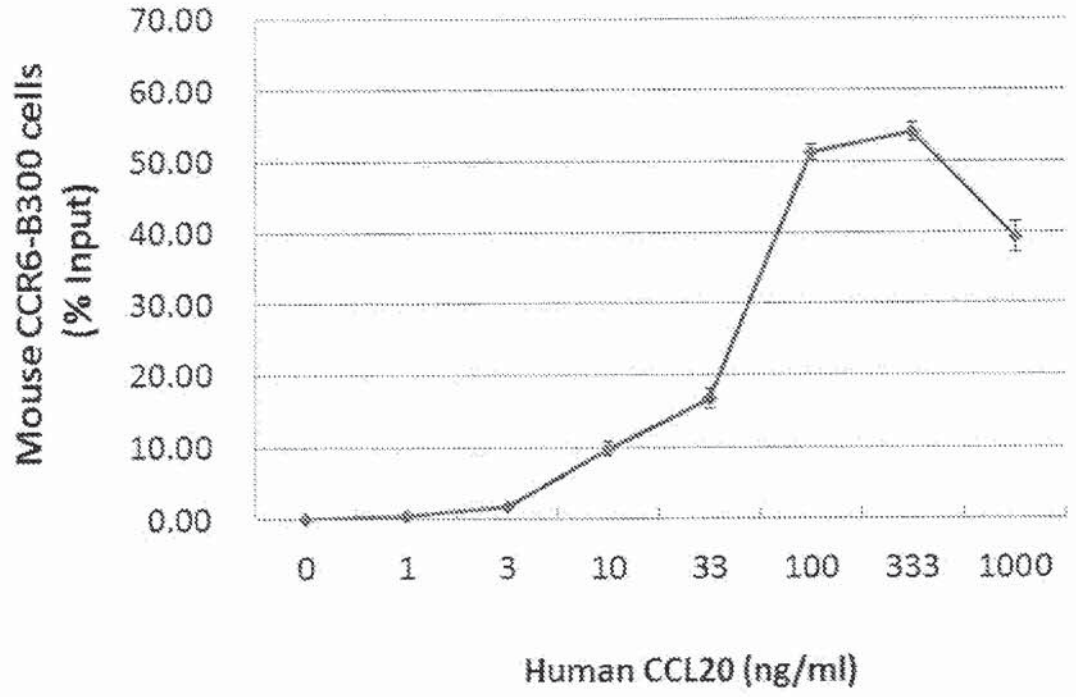

70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Mouse CCR6-B300 cells (% Input)
0
1
3
10
33
100
333
1000
Human CCL20 (ng/ml)

FIG. 19

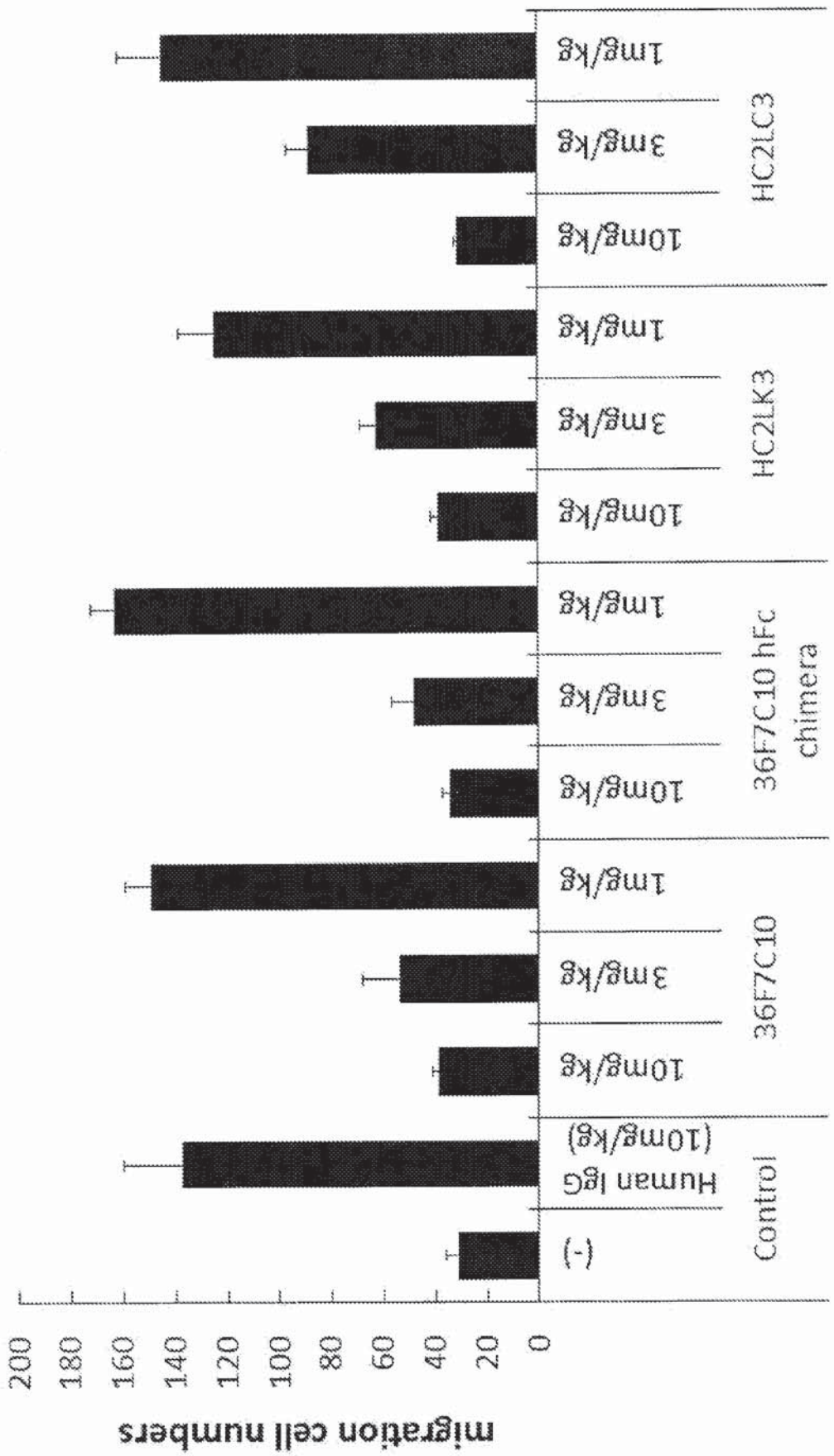

migration cell numbers
200
180
160
140
120
100
80
60
40
20
0
Control
(-)
Human IgG (10mg/kg)
36F7C10
10mg/kg
3mg/kg
1mg/kg
36F7C10 hFc chimera
10mg/kg
3mg/kg
1mg/kg
HC2LK3
10mg/kg
3mg/kg
1mg/kg
HC2LC3
10mg/kg
3mg/kg
1mg/kg

FIG. 20

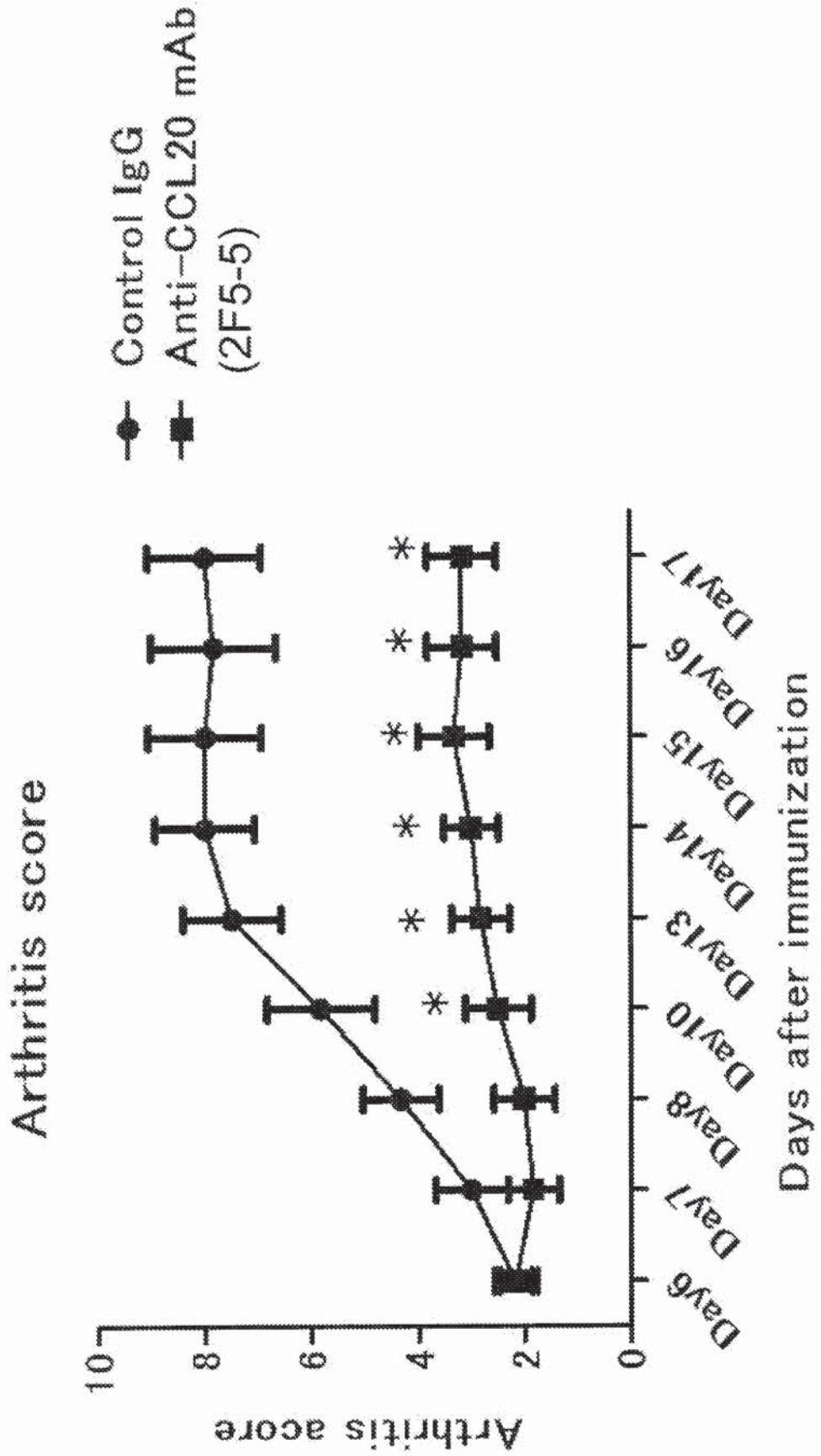

Arthritis score
Control IgG
Anti-CCL20 mAb (2F5-5)
Arthritis score
10
8
6
4
2
0
Day6
Day7
Day8
Day10
Day13
Day14
Day15
Day16
Day17
Days after immunization

FIG. 21

Control IgG	Day								
Animal	6	7	8	10	13	14	15	16	17
1	1	1	2	2	9	9	10	10	10
2	2	2	4	5	6	7	7	7	7
3	3	6	7	8	8	8	8	8	8
4	2	3	3	5	5	6	5	4	5
5	3	3	5	9	11	12	12	12	12
6	2	3	5	6	6	6	6	6	6
Average	2.2	3.0	4.3	5.8	7.5	8.0	8.0	7.8	8.0
ST DEV	0.3	0.7	0.7	1.0	0.9	0.9	1.1	1.2	1.1
2F5-5 Animal									
1	3	3	3	4	5	5	6	6	6
2	3	2	2	2	2	3	3	3	3
3	3	3	4	4	3	3	4	3	3
4	1	1	2	3	3	3	3	3	3
5	2	2	1	2	3	3	3	3	3
6	1	0	0	0	1	1	1	1	1
Average	2.2	1.8	2.0	2.5	2.8	3.0	3.3	3.2	3.2
ST DEV	0.4	0.5	0.6	0.6	0.5	0.5	0.7	0.7	0.7

FIG. 22

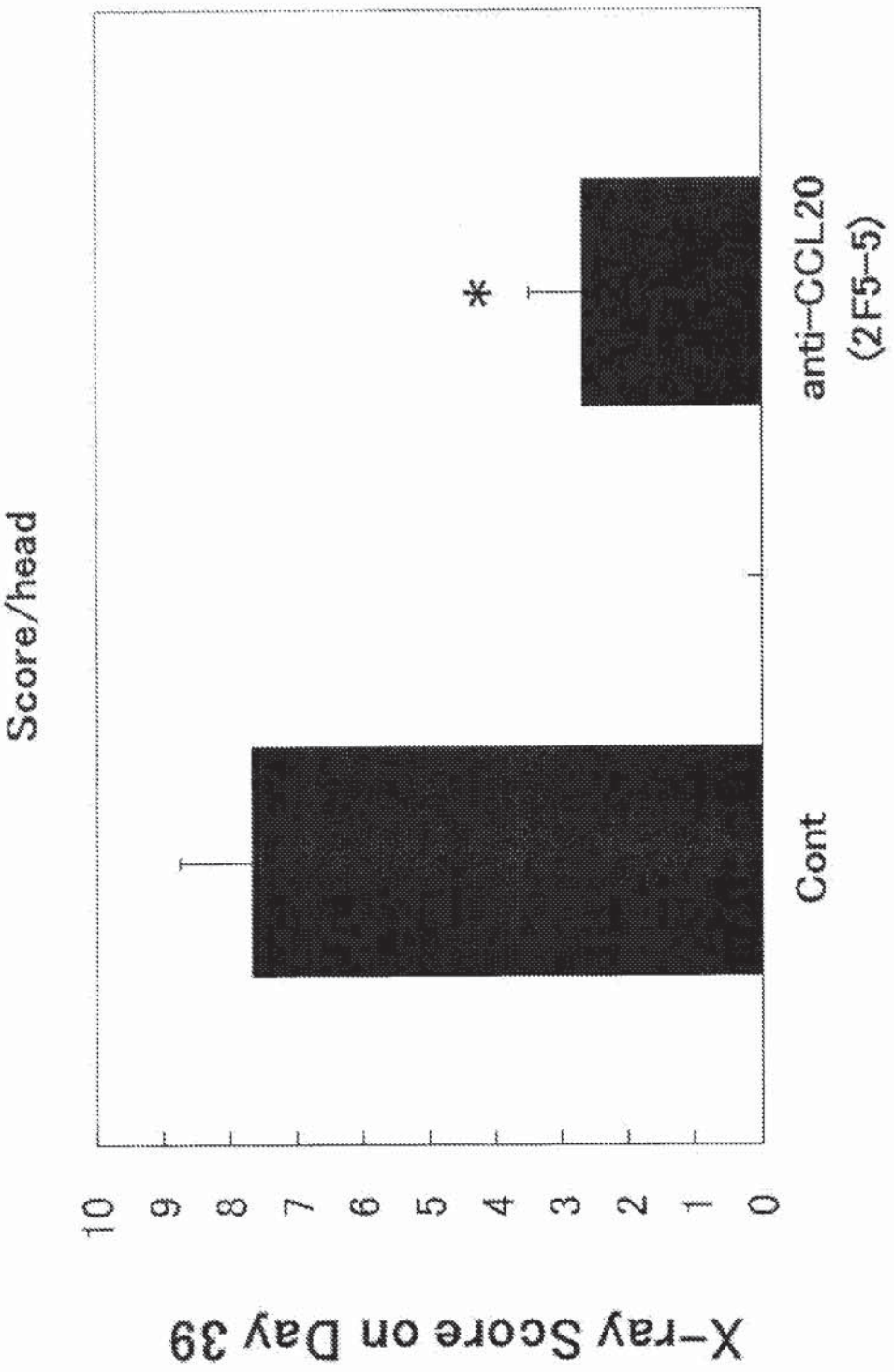

X-ray Score on Day 39
Score/head
10
9
8
7
6
5
4
3
2
1
0
Cont
anti-CCL20
(2F5-5)
*

FIG. 23

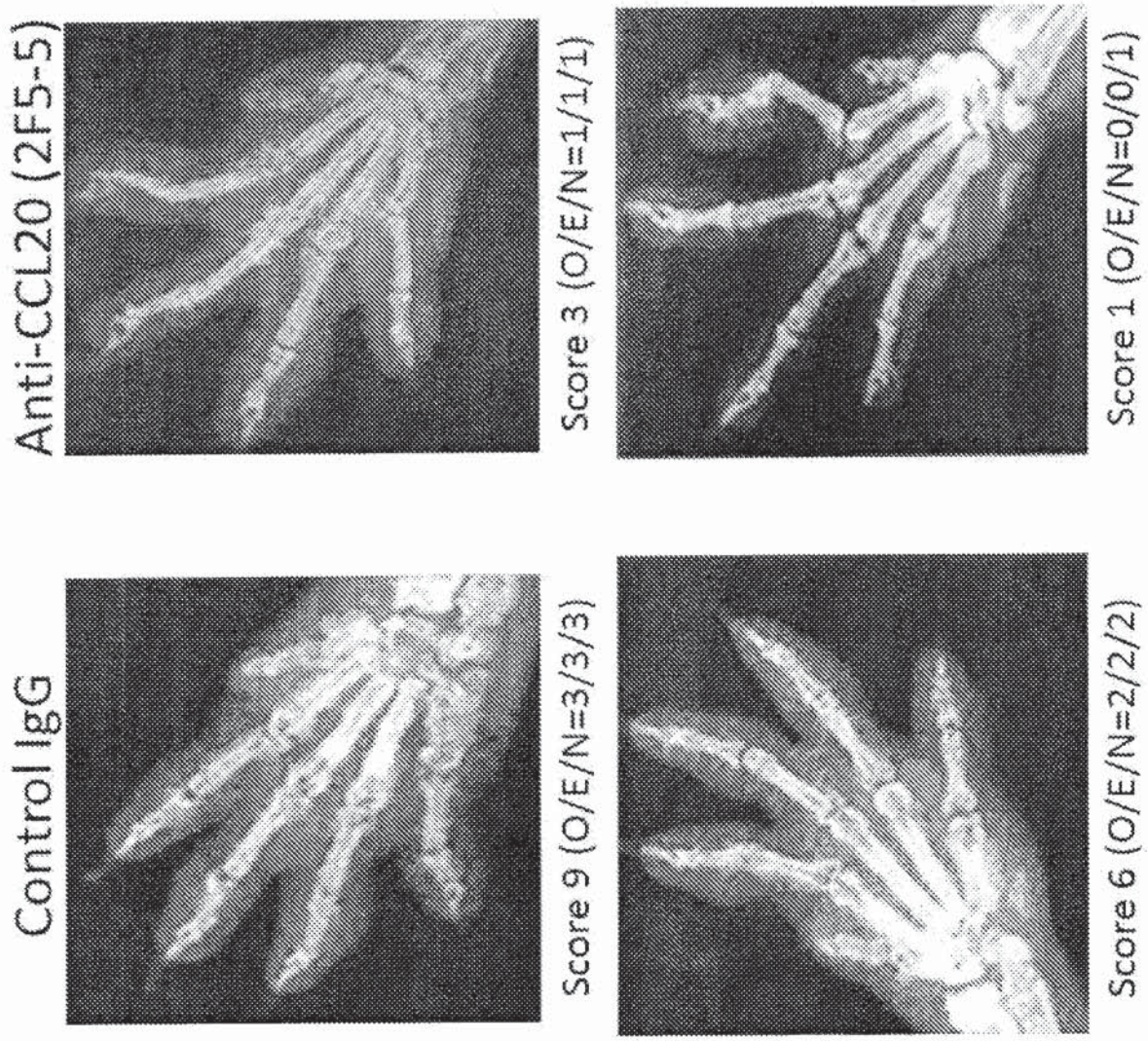

Control IgG
Anti-CCL20 (2F5-5)
Score 9 (O/E/N=3/3/3)
Score 3 (O/E/N=1/1/1)
Score 6 (O/E/N=2/2/2)
Score 1 (O/E/N=0/0/1)

FIG. 24

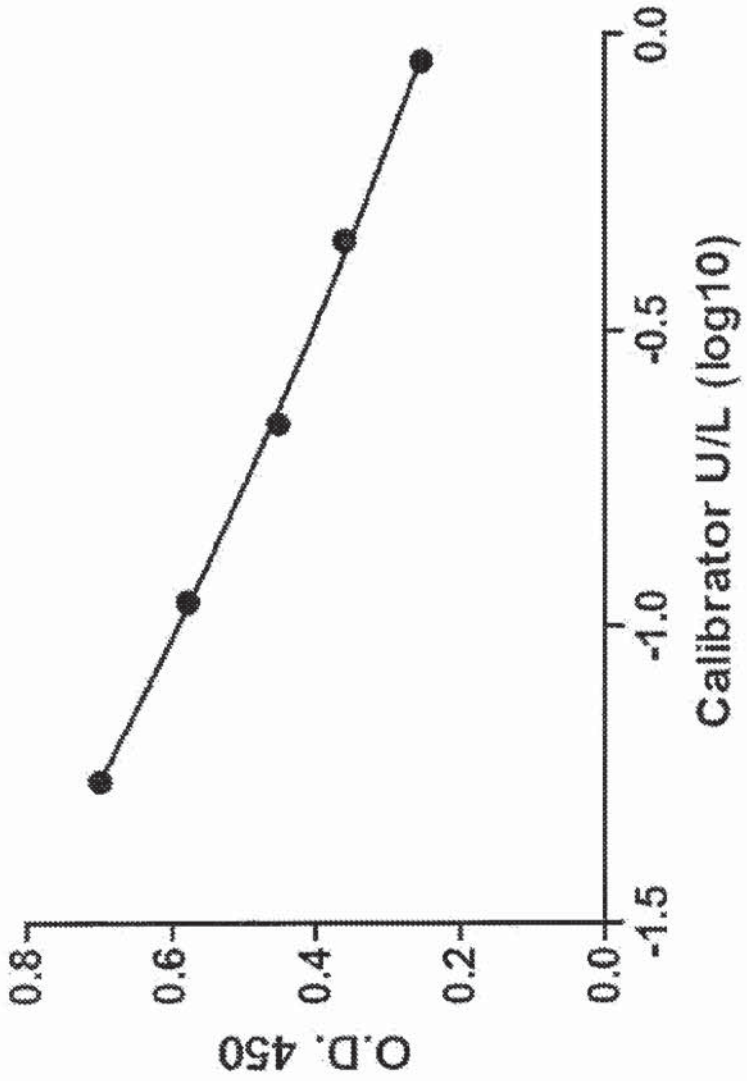


FIG. 25A

				CIA with IFA (Incomplete Freund adjuvant)				CIA with CFA (Complete Freund adjuvant)			
	1	2	3	4	5	6	7	8	9	10	11
A	1	normal_1		Hamster control IgG		anti-CCL20 (2F5-5)		Hamster control IgG		anti-CCL20 (2F5-5)	
B	2	normal_2		Hamster control IgG		anti-CCL20 (2F5-5)		Hamster control IgG		anti-CCL20 (2F5-5)	
C	3	normal_3		Hamster control IgG		anti-CCL20 (2F5-5)		Hamster control IgG		anti-CCL20 (2F5-5)	
D	4	normal_4		Hamster control IgG		anti-CCL20 (2F5-5)		Hamster control IgG		anti-CCL20 (2F5-5)	
E	5	normal_5		Hamster control IgG		anti-CCL20 (2F5-5)		Hamster control IgG		anti-CCL20 (2F5-5)	
F	6	normal_6		Hamster control IgG		anti-CCL20 (2F5-5)		Hamster control IgG		anti-CCL20 (2F5-5)	
G	Calibrator U/L	0	0.9	0.45	0.22	0.11	0.055	blank	blank	blank	blank
H								blank	blank	blank	blank

	1	2	3	4	5	6	7	8	9	10	11
A	1	0.669	0.637	0.504	0.483	0.558	0.585	0.508	0.512	0.552	0.566
B	2	0.577	0.559	0.493	0.468	0.541	0.552	0.442	0.445	0.614	0.618
C	3	0.592	0.550	0.559	0.484	0.551	0.566	0.475	0.482	0.520	0.549
D	4	0.551	0.537	0.460	0.432	0.512	0.523	0.437	0.461	0.513	0.524
E	5	0.600	0.557	0.515	0.480	0.481	0.487	0.529	0.518	0.554	0.581
F	6	0.589	0.577	0.431	0.400	0.518	0.538	0.443	0.456	0.537	0.561
G	Calibrator OD450	0.800	0.250	0.360	0.450	0.575	0.692	0.848	0.840	0.855	0.897
H		0.807	0.257	0.361	0.456	0.581	0.706	0.873	0.890	0.876	0.941

OD450 values were obtained by regular colorimetric assay

FIG. 25B

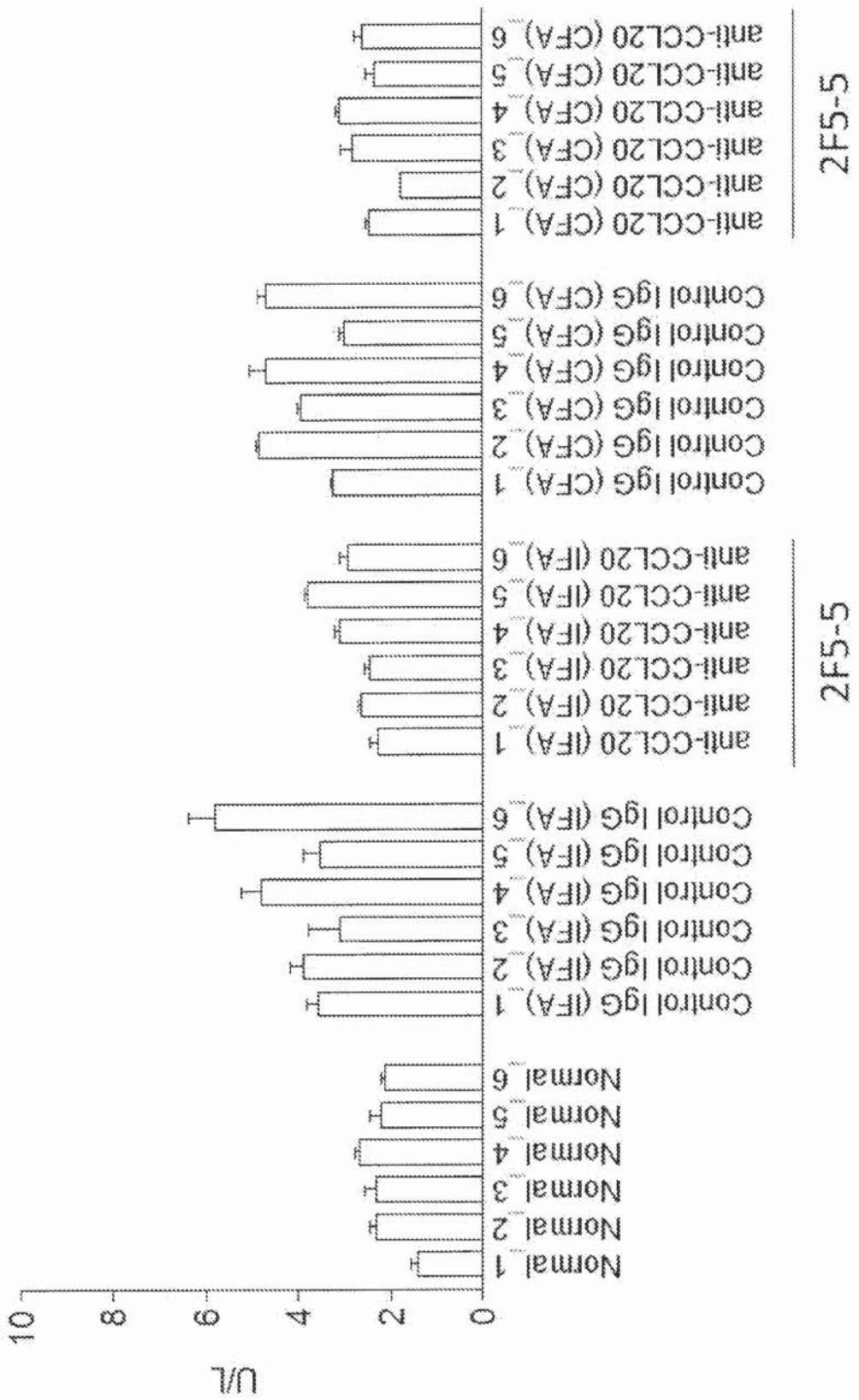

U/L
0
2
4
6
8
10
Normal_1
Normal_2
Normal_3
Normal_4
Normal_5
Normal_6
Control IgG (IFA)_1
Control IgG (IFA)_2
Control IgG (IFA)_3
Control IgG (IFA)_4
Control IgG (IFA)_5
Control IgG (IFA)_6
anti-CCL20 (IFA)_1
anti-CCL20 (IFA)_2
anti-CCL20 (IFA)_3
anti-CCL20 (IFA)_4
anti-CCL20 (IFA)_5
anti-CCL20 (IFA)_6
2F5-5
Control IgG (CFA)_1
Control IgG (CFA)_2
Control IgG (CFA)_3
Control IgG (CFA)_4
Control IgG (CFA)_5
Control IgG (CFA)_6
anti-CCL20 (CFA)_1
anti-CCL20 (CFA)_2
anti-CCL20 (CFA)_3
anti-CCL20 (CFA)_4
anti-CCL20 (CFA)_5
anti-CCL20 (CFA)_6
2F5-5

FIG. 25C

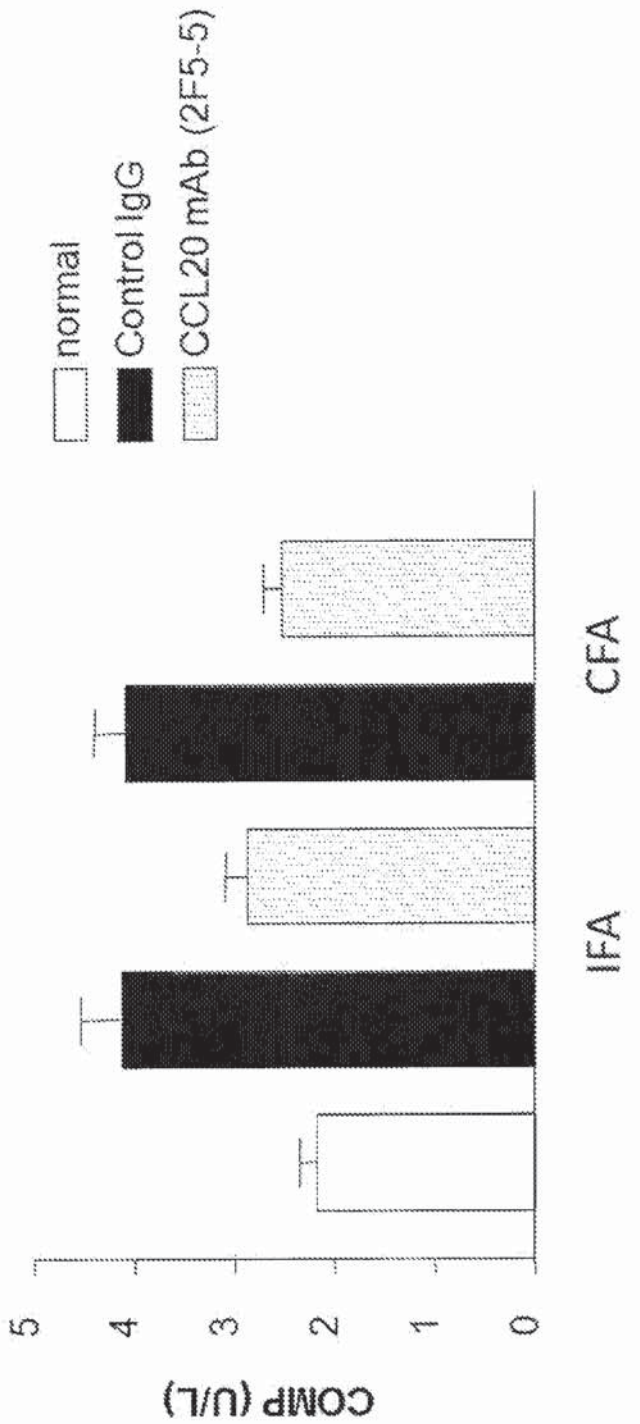


FIG. 26

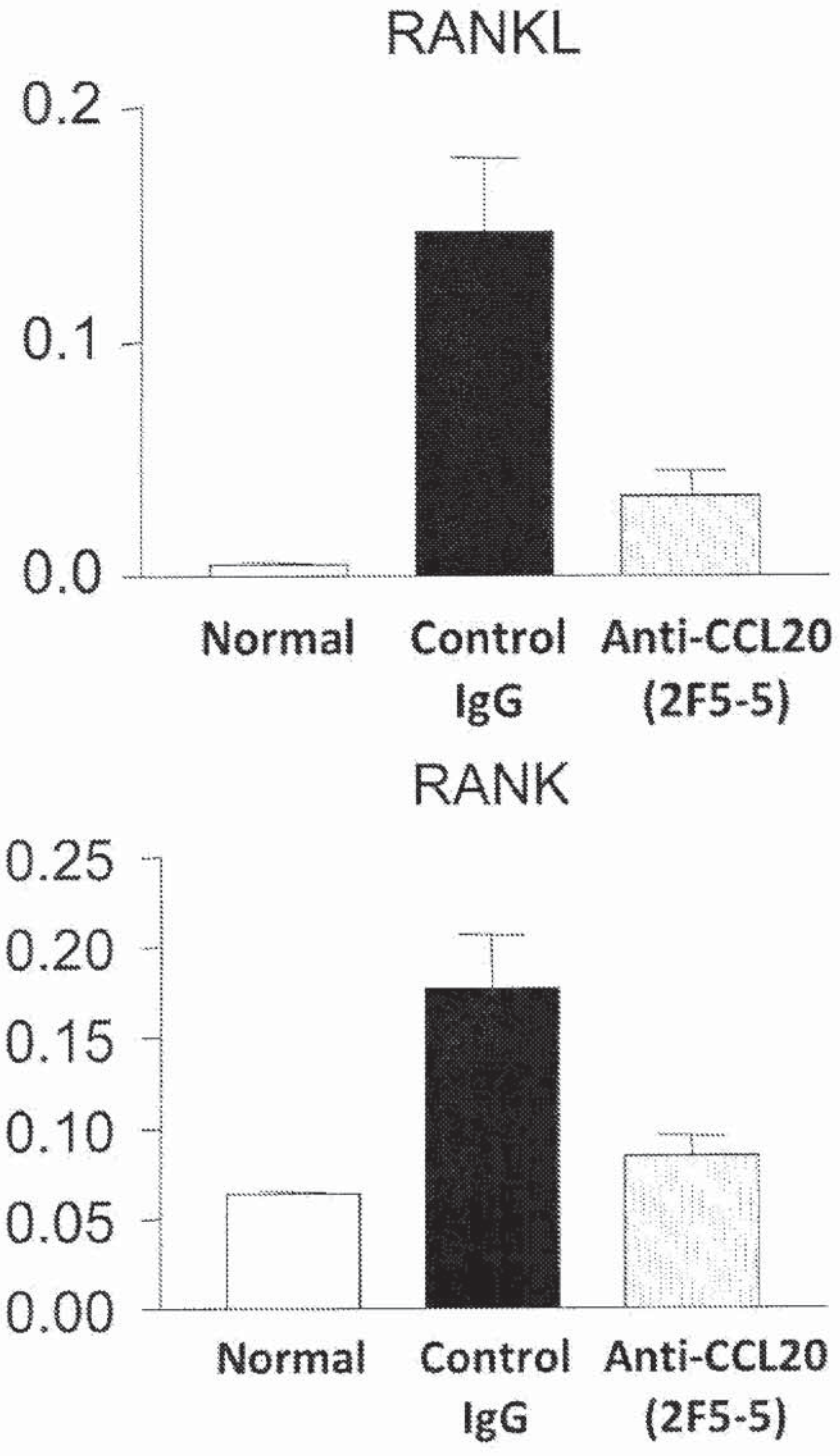

RANKL
0.2
0.1
0.0
Normal
Control IgG
Anti-CCL20 (2F5-5)
RANK
0.25
0.20
0.15
0.10
0.05
0.00
Normal
Control IgG
Anti-CCL20 (2F5-5)

FIG. 27A

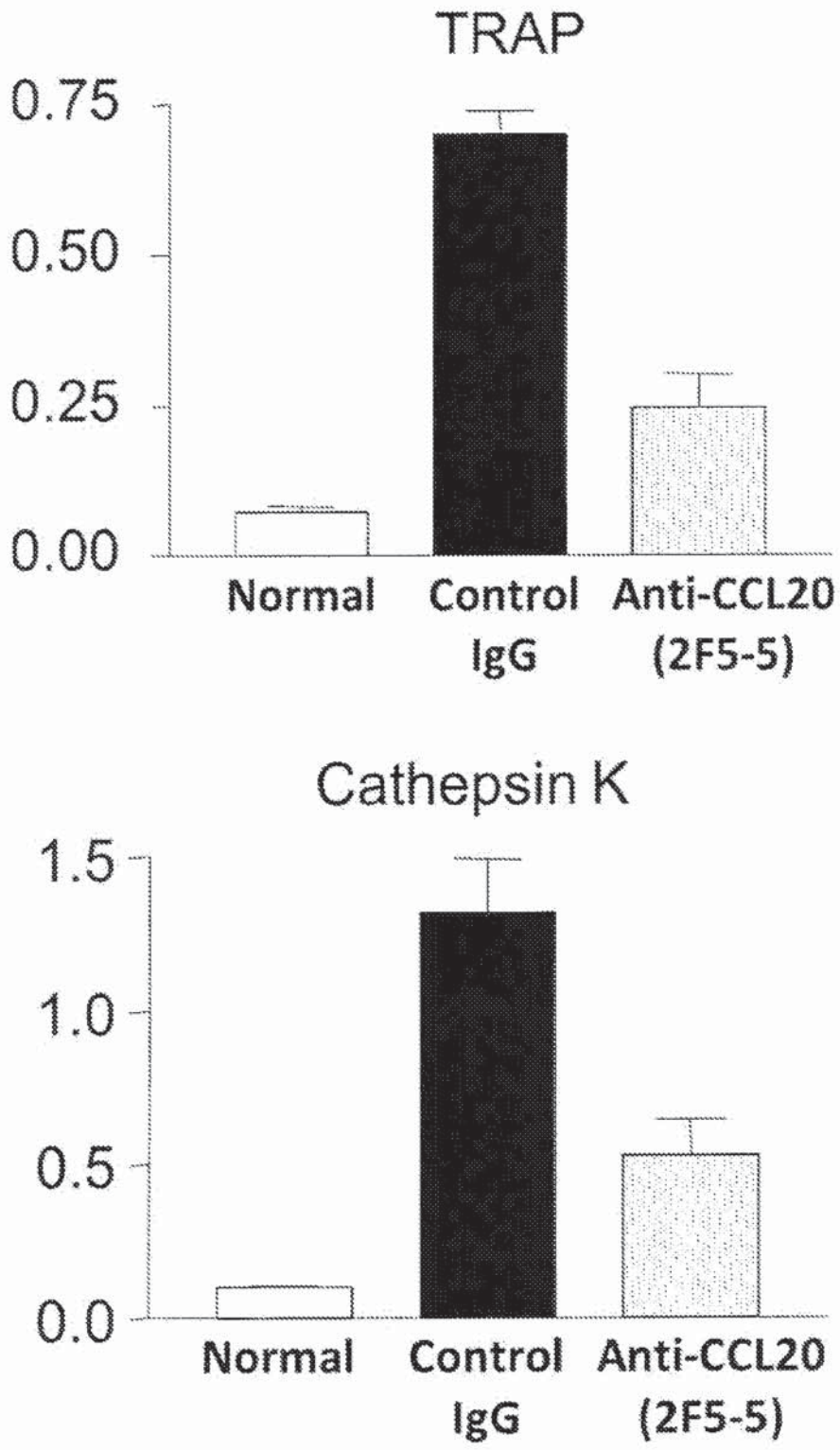

TRAP
0.75
0.50
0.25
0.00
Normal
Control IgG
Anti-CCL20 (2F5-5)
Cathepsin K
1.5
1.0
0.5
0.0
Normal
Control IgG
Anti-CCL20 (2F5-5)

FIG. 27B

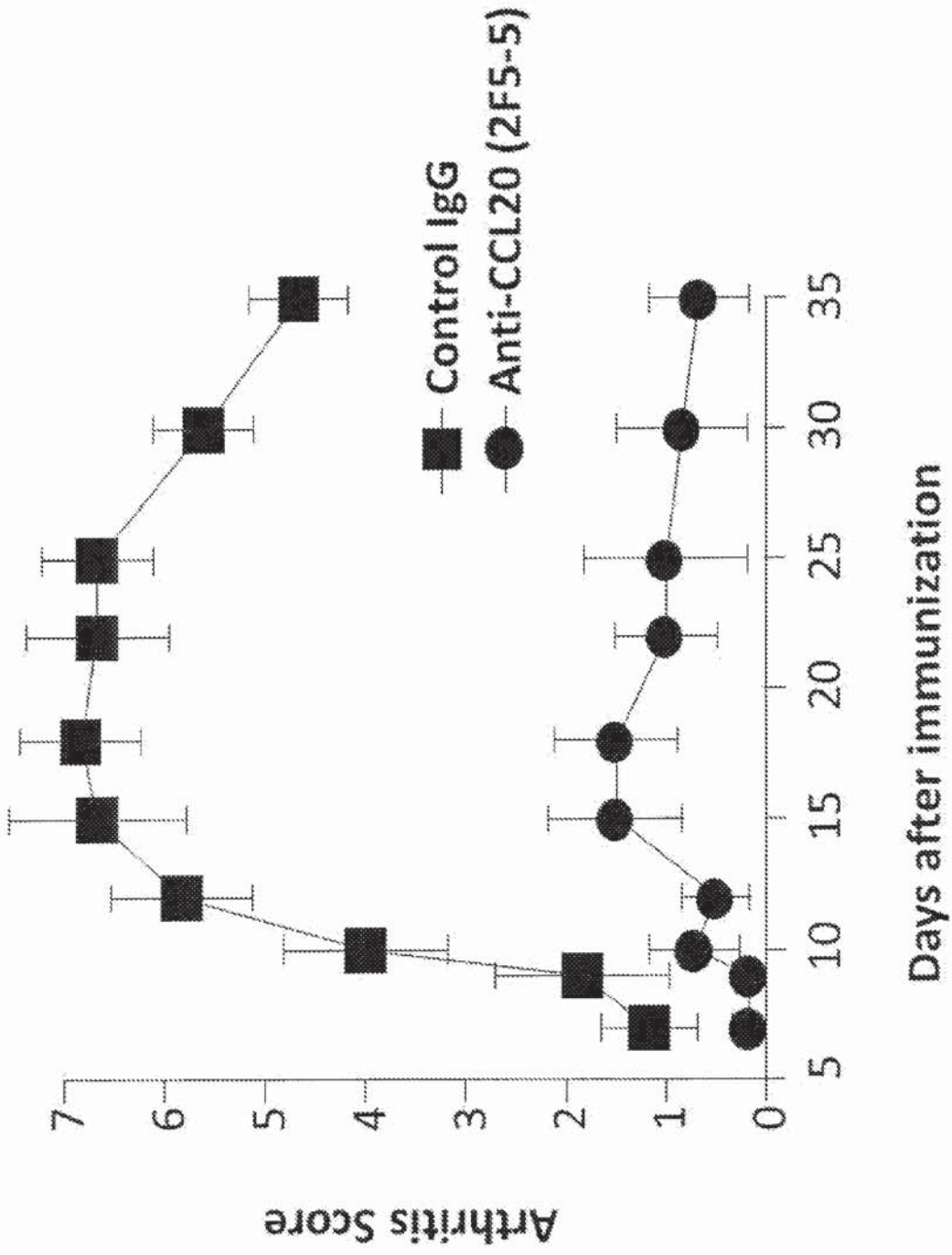

Arthritis Score
0
1
2
3
4
5
6
7
5
10
15
20
25
30
35
Days after immunization
Control IgG
Anti-CCL20 (2F5-5)

FIG. 28

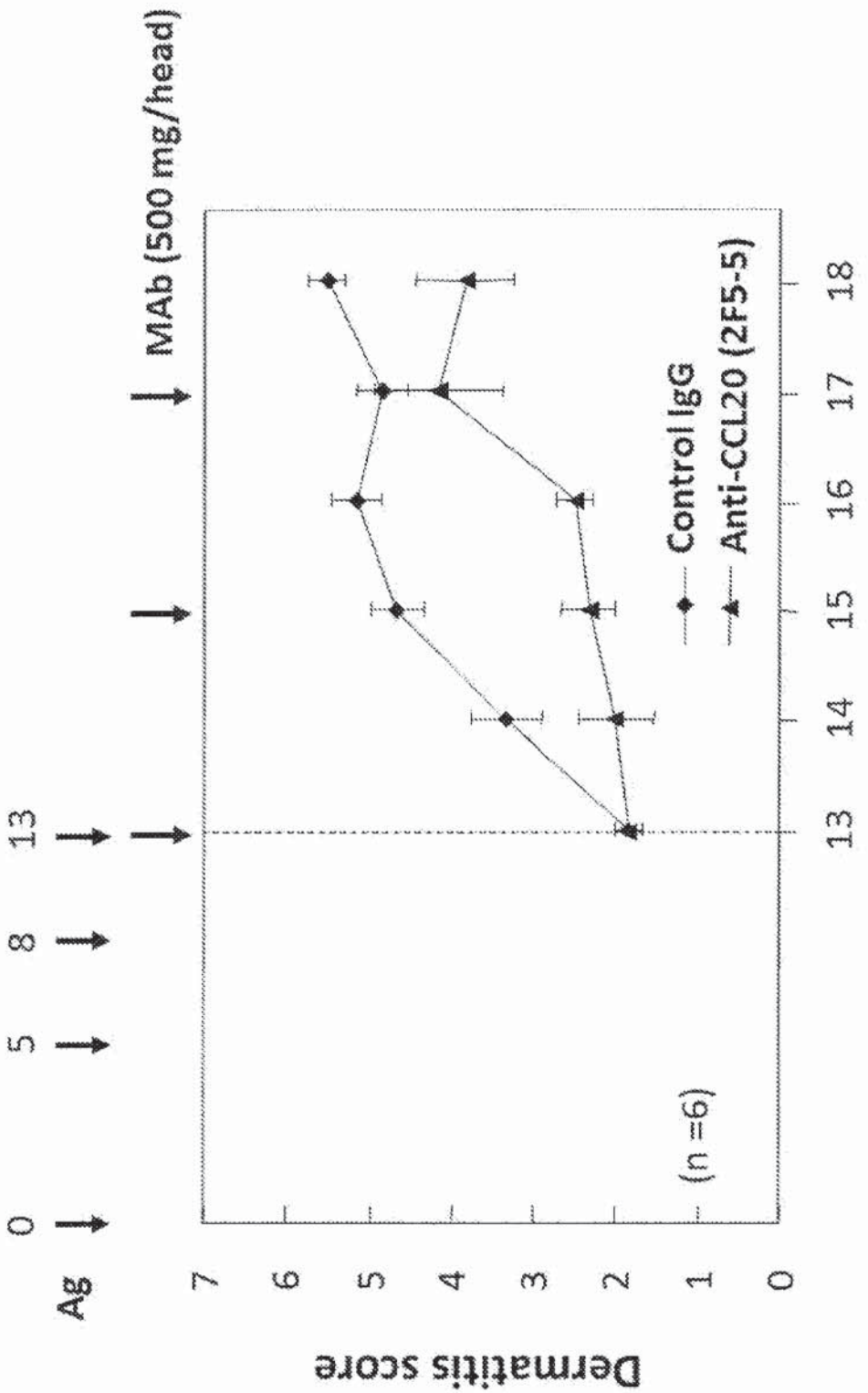

Ag
0
5
8
13
MAb (500 mg/head)
Dermatitis score
7
6
5
4
3
2
1
0
(n =6)
Control IgG
Anti-CCL20 (2F5-5)
13
14
15
16
17
18
Day

FIG. 29

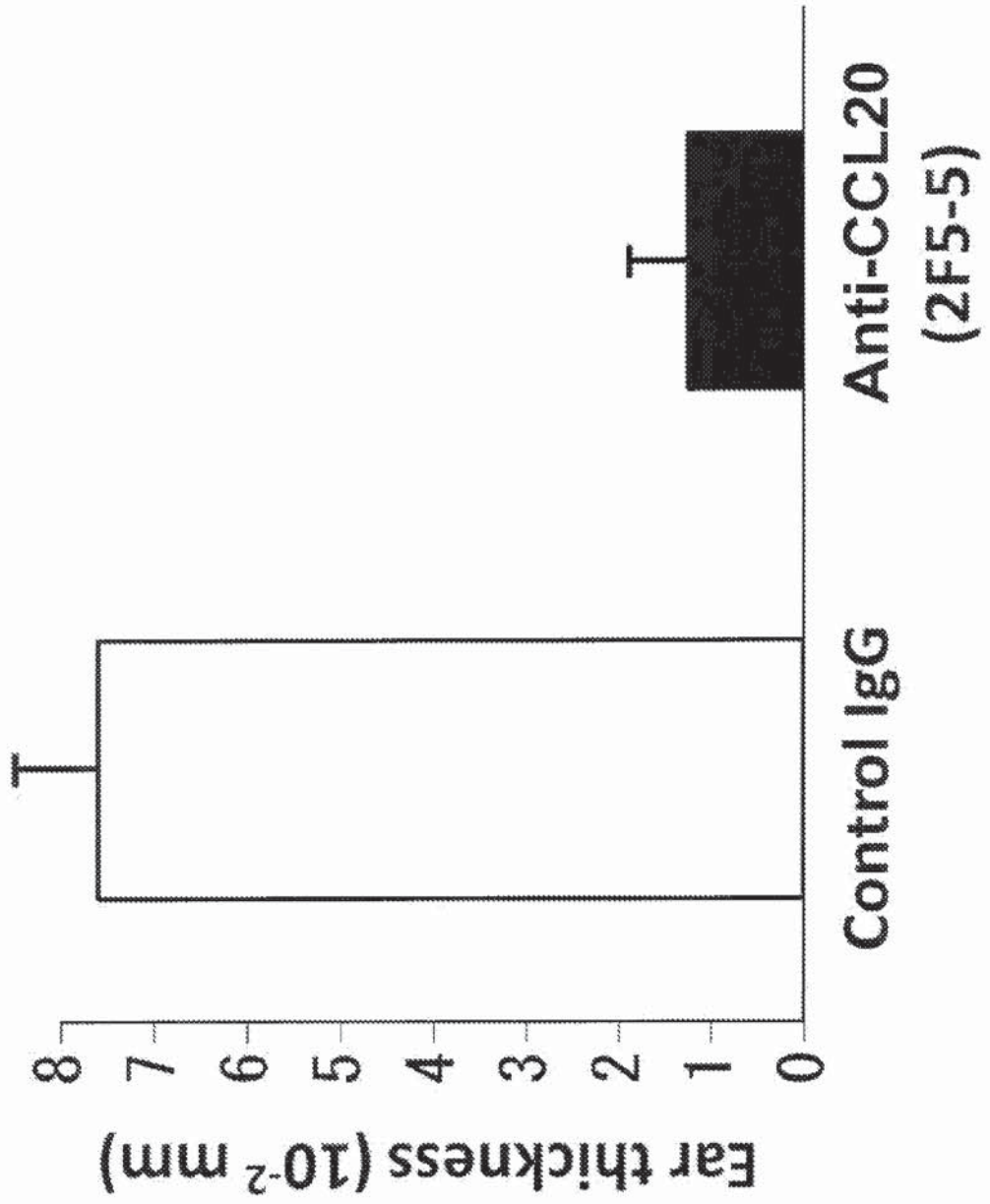


FIG. 30