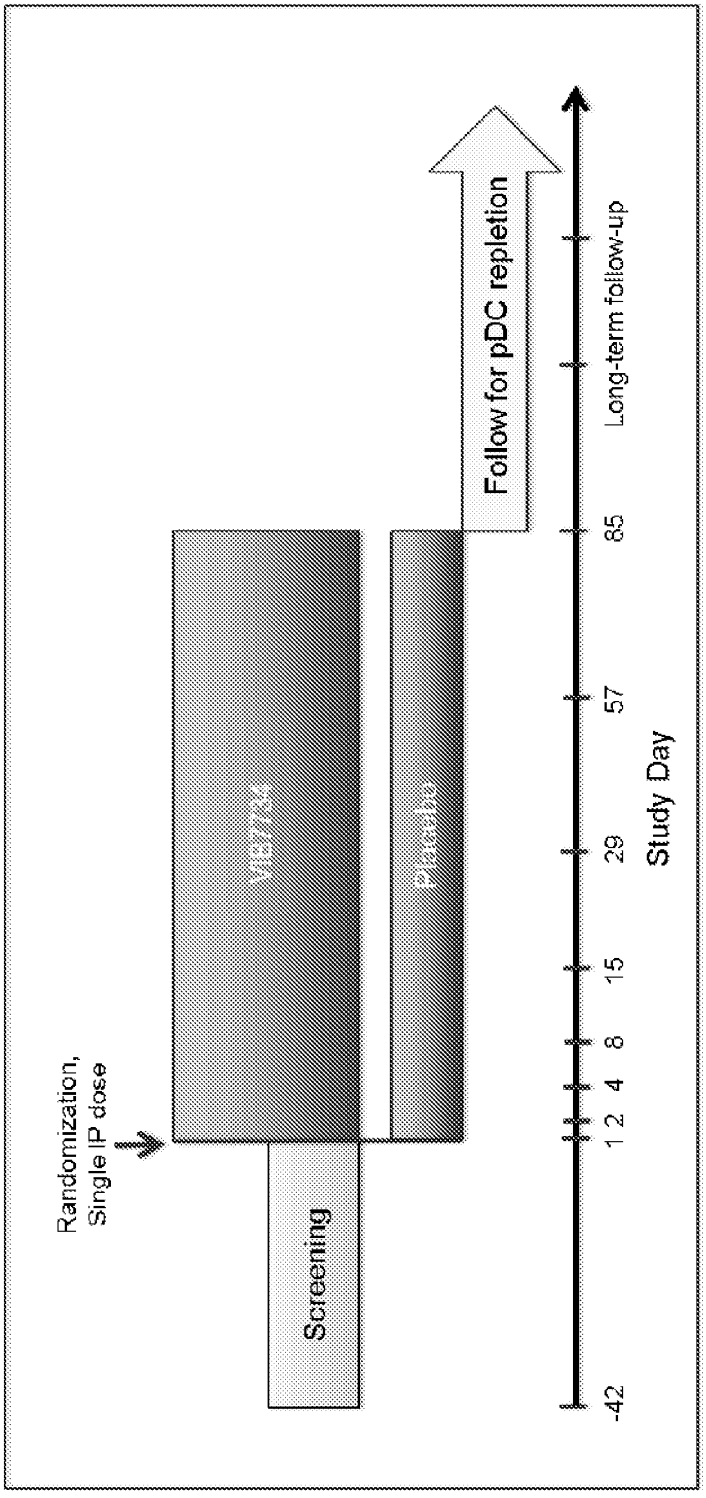


IP = investigational product (VIB7734 or placebo); pDC = plasmacytoid dendritic cells

Sites had the option of bringing the subject into the inpatient unit to stay overnight on the day before randomization (Day -1)

FIG. 1

Placebo-controlled, randomized 3:1

5 cohorts, n=36

Single subcutaneous dose

Doses: 1, 5, 15, 50, 150 mg

Study population: Adults with at least one of the following autoimmune diseases:

Dermatomyositis

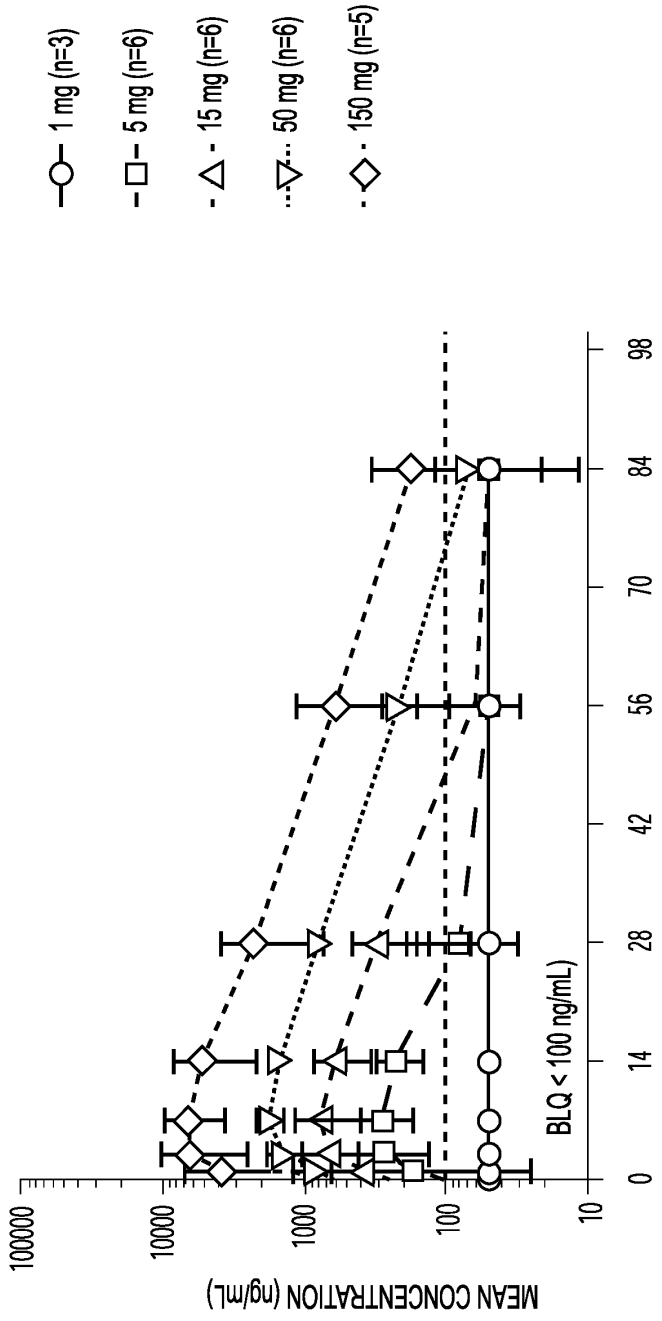
Polymyositis

Sjögren's syndrome

Systemic lupus erythematosus

Systemic sclerosis

FIG. 2



- Due to the high LLOQ, concentrations from 1 mg dose cohort were all BLQ
- PK exposure increased in an approximately dose-proportional manner over the dose range of 1 to 150 mg VIB7734 single SC dose
- Half-life: ranged from 13-20 days at 15-150 mg dose levels
- No ADA positive samples were detected

FIG. 3

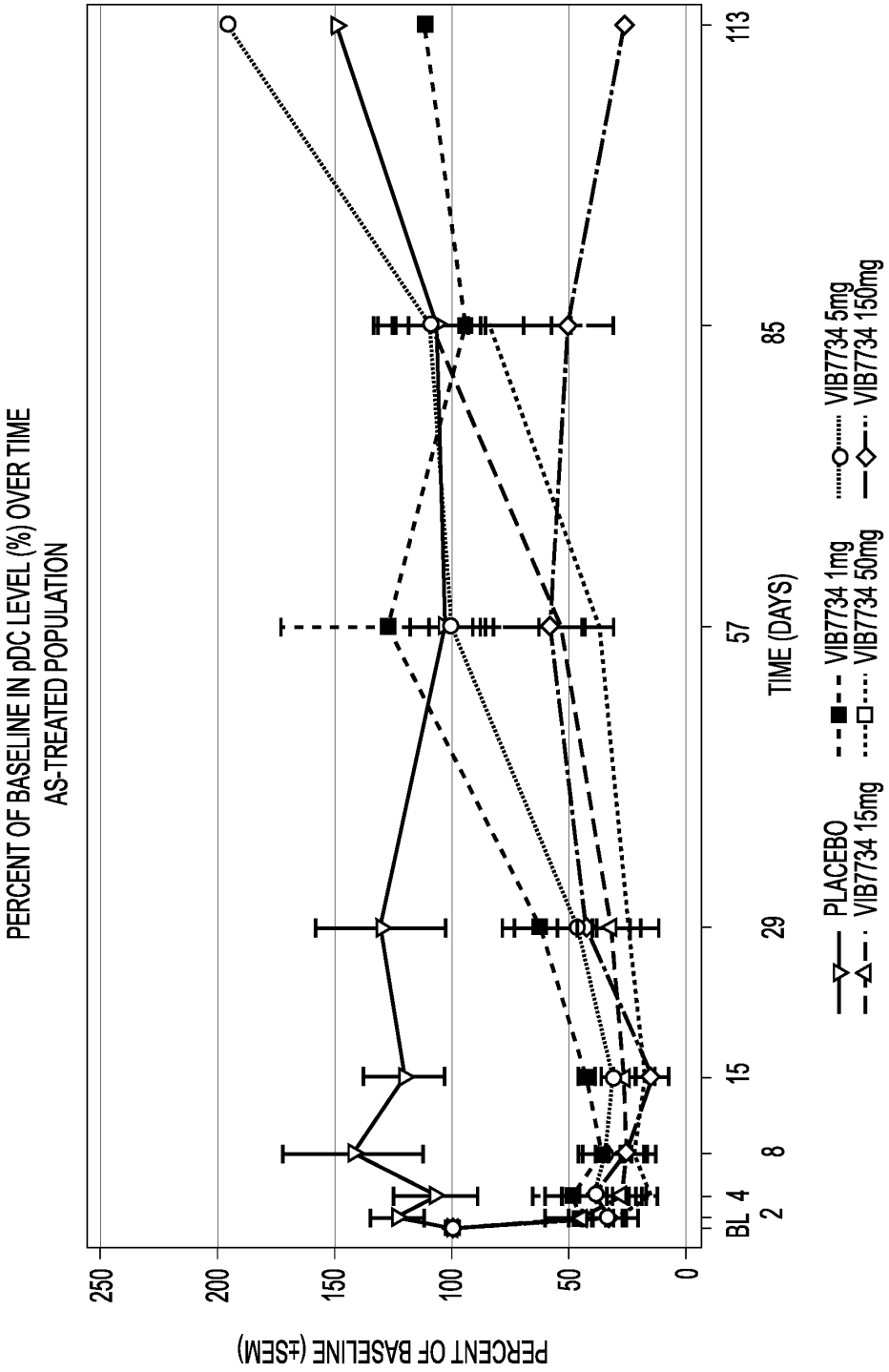

PERCENT OF BASELINE IN pDC LEVEL (%) OVER TIME
AS-TREATED POPULATION
PERCENT OF BASELINE (±SEM)
250
200
150
100
50
0
BL
2
4
8
15
29
57
85
113
TIME (DAYS)
PLACEBO
VIB7734 1mg
VIB7734 5mg
VIB7734 15mg
VIB7734 50mg
VIB7734 150mg

FIG. 4

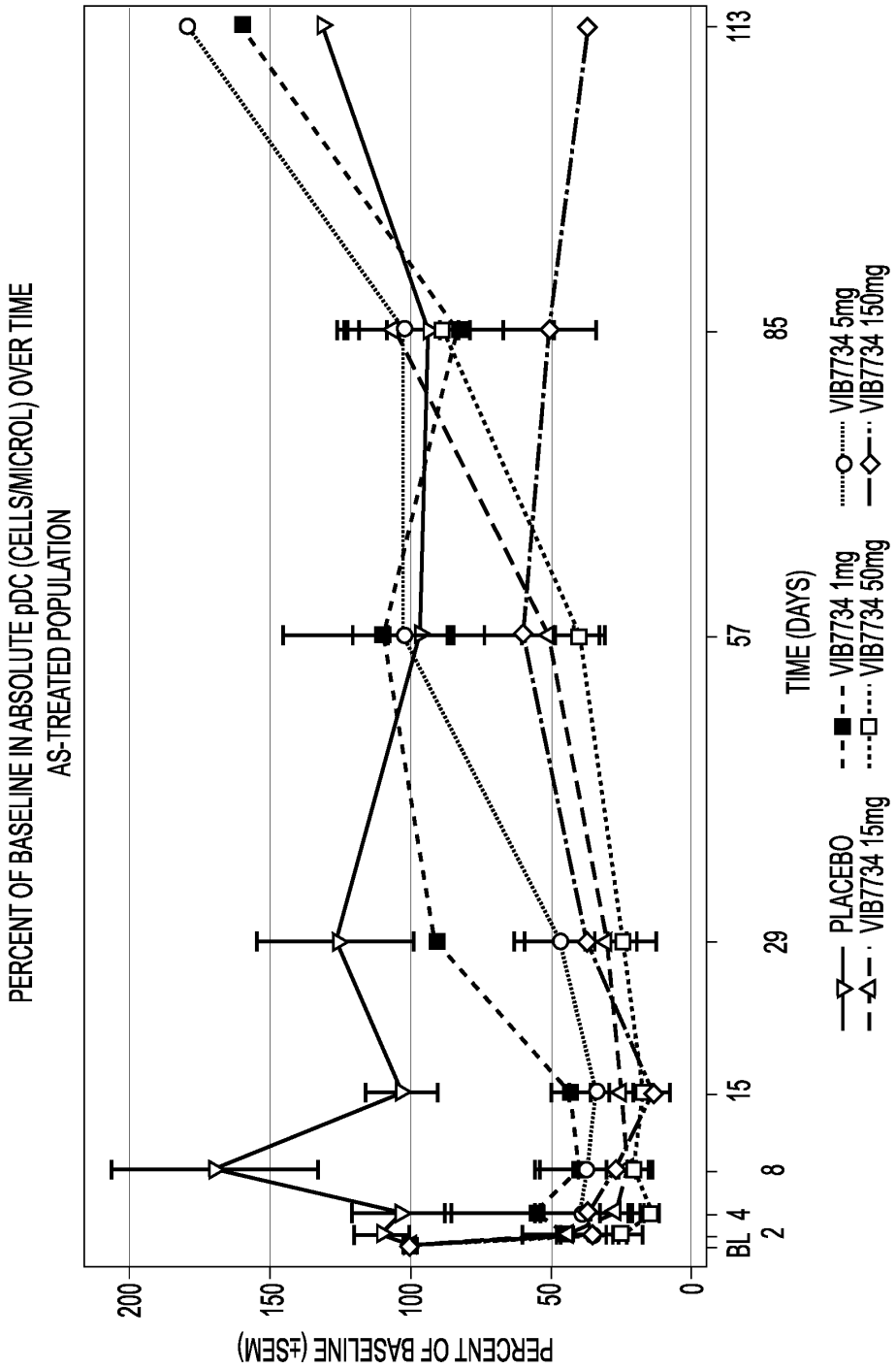

PERCENT OF BASELINE IN ABSOLUTE pDC (CELLS/MICROL) OVER TIME
AS-TREATED POPULATION
PERCENT OF BASELINE (±SEM)
200
150
100
50
0
BL
2
4
8
15
29
57
85
113
TIME (DAYS)
PLACEBO
VIB7734 1mg
VIB7734 5mg
VIB7734 15mg
VIB7734 50mg
VIB7734 150mg

FIG. 5

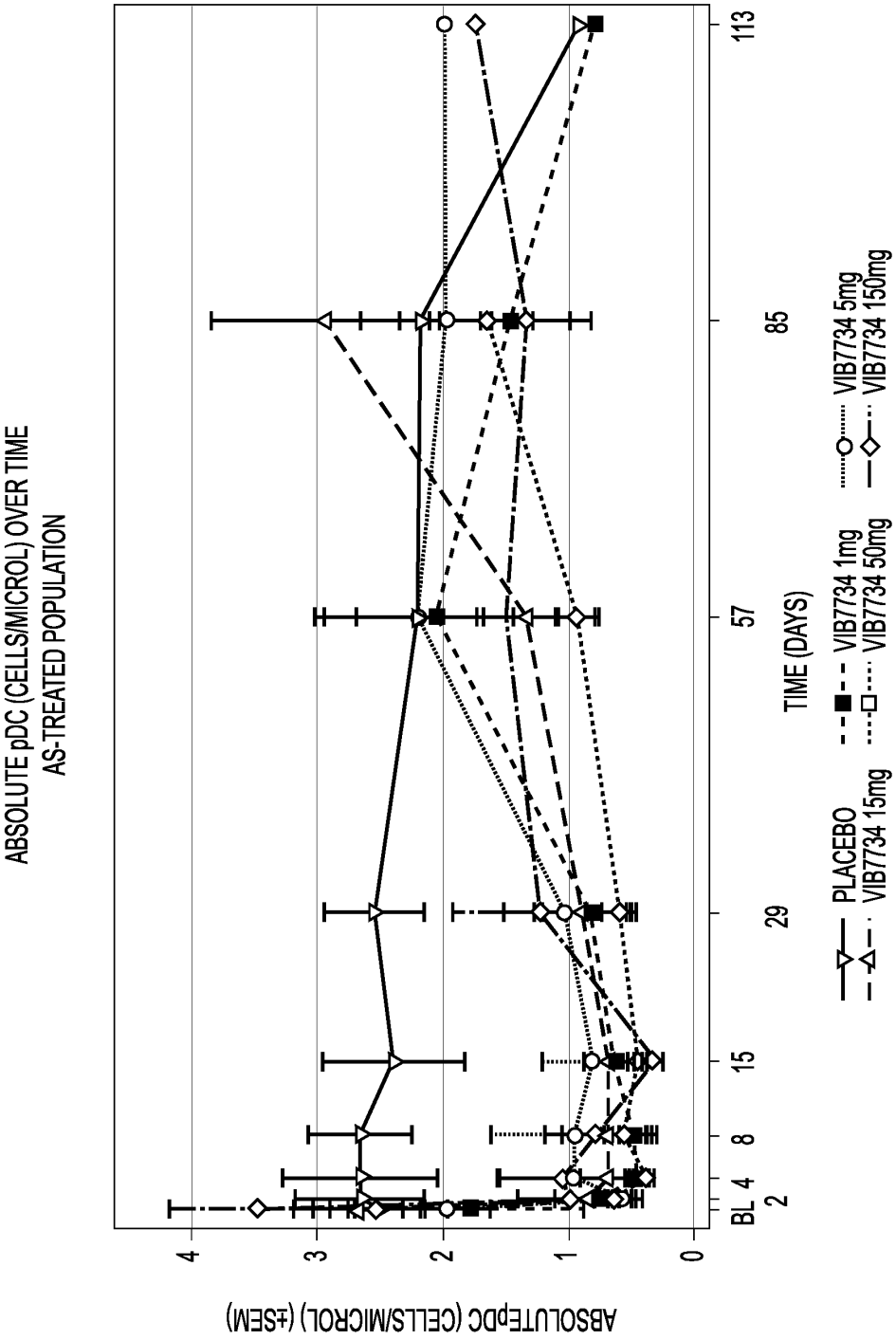

ABSOLUTE pDC (CELLS/MICROL) OVER TIME
AS-TREATED POPULATION
ABSOLUTEpDC (CELLS/MICROL) (±SEM)
0
1
2
3
4
BL 4 8 15 29 57 85 113
2
TIME (DAYS)
PLACEBO
VIB7734 1mg
VIB7734 5mg
VIB7734 15mg
VIB7734 50mg
VIB7734 150mg

FIG. 6

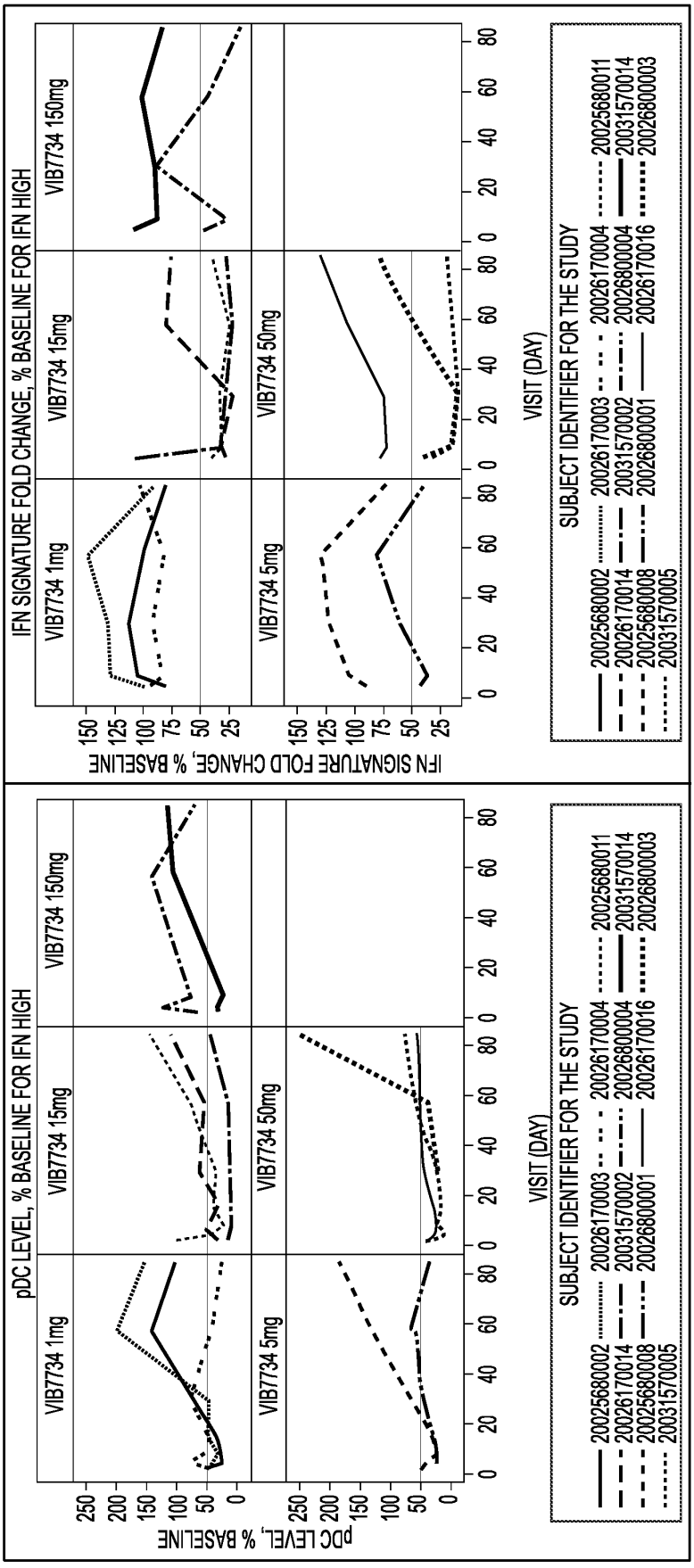

pDC LEVEL, % BASELINE FOR IFN HIGH
VIB7734 1mg
VIB7734 15mg
VIB7734 150mg
VIB7734 5mg
VIB7734 50mg
pDC LEVEL, % BASELINE
VISIT (DAY)
SUBJECT IDENTIFIER FOR THE STUDY
20025680002
20026170003
20025680011
20026170014
20031570002
20026800004
20031570014
20025680008
20026800001
20026170016
20026800003
20031570005
IFN SIGNATURE FOLD CHANGE, % BASELINE FOR IFN HIGH
IFN SIGNATURE FOLD CHANGE, % BASELINE
VISIT (DAY)
SUBJECT IDENTIFIER FOR THE STUDY

FIG. 7A

FIG. 7B

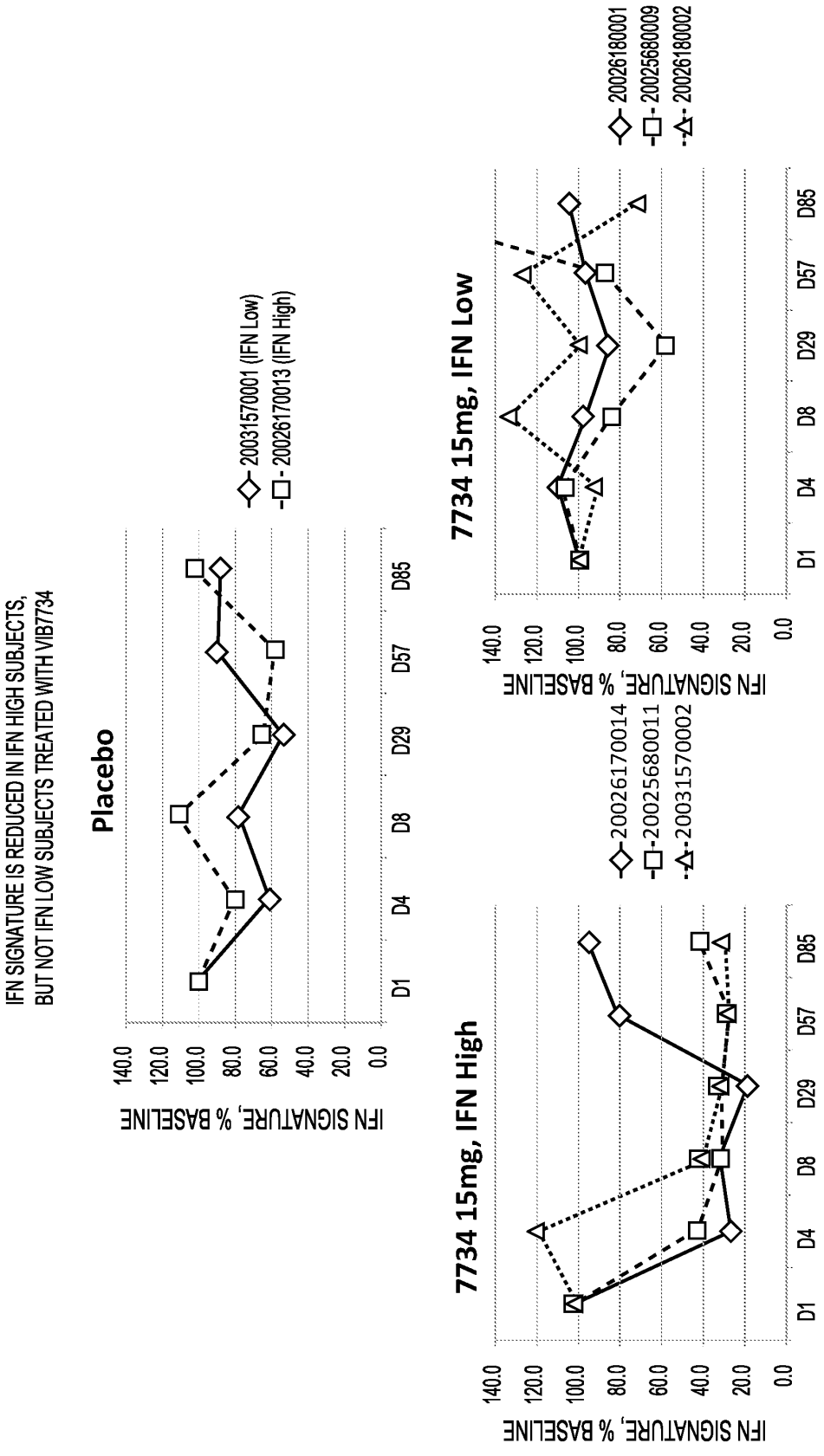

IFN SIGNATURE IS REDUCED IN IFN HIGH SUBJECTS,
BUT NOT IFN LOW SUBJECTS TREATED WITH VIB7734
Placebo
20031570001 (IFN Low)
20026170013 (IFN High)
IFN SIGNATURE, % BASELINE
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
D1
D4
D8
D29
D57
D85
7734 15mg, IFN Low
20026180001
20025680009
20026180002
7734 15mg, IFN High
20026170014
20025680011
20031570002

FIG. 8

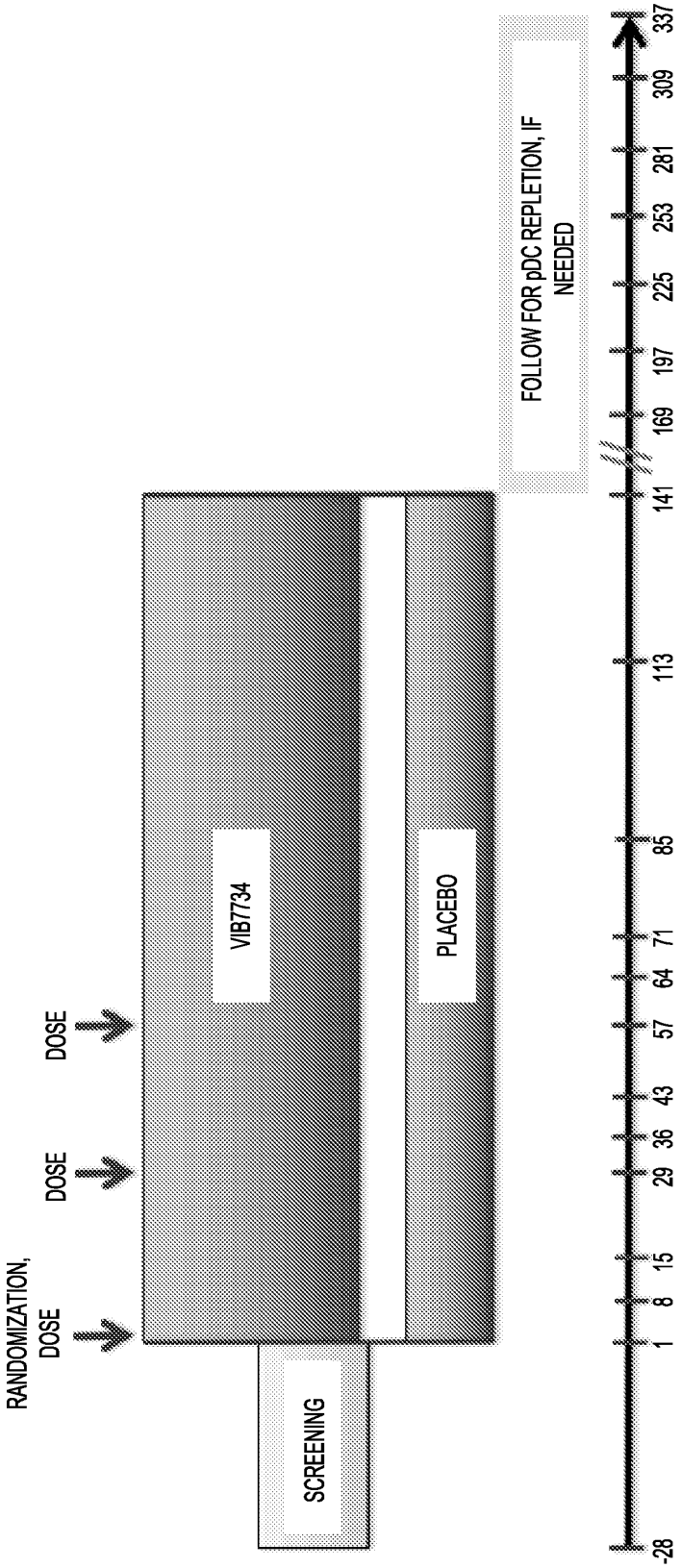

SCREENING
RANDOMIZATION, DOSE
DOSE
DOSE
DOSE
VIB7734
PLACEBO
FOLLOW FOR pDC REPLETION, IF NEEDED
-28
1
8
15
29
36
43
57
64
71
85
113
141
169
197
225
253
281
309
337
STUDY DAY

FIG. 9

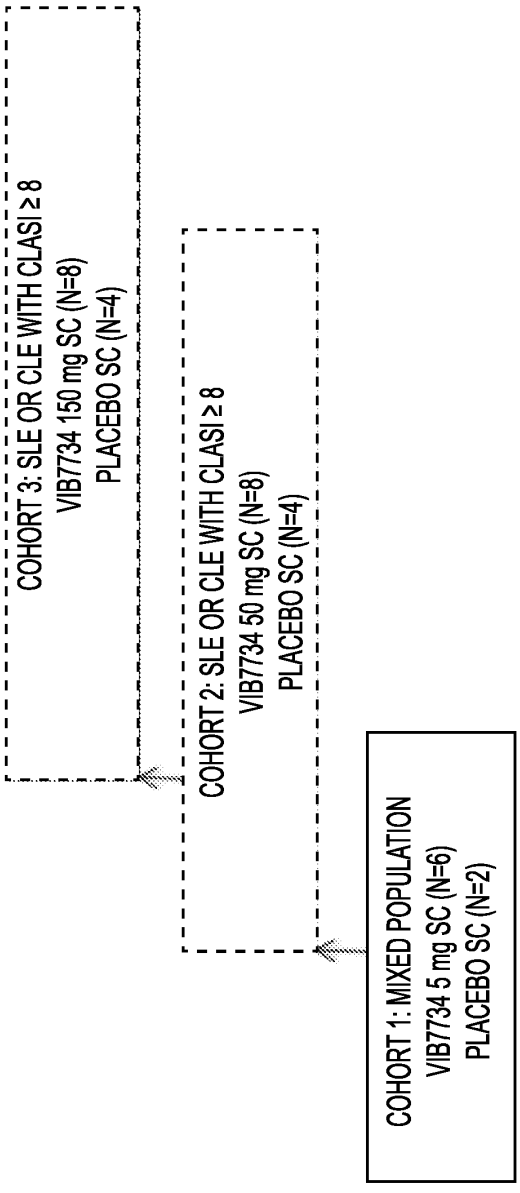

COHORT 3: SLE OR CLE WITH CLASI ≥ 8
VIB7734 150 mg SC (N=8)
PLACEBO SC (N=4)
COHORT 2: SLE OR CLE WITH CLASI ≥ 8
VIB7734 50 mg SC (N=8)
PLACEBO SC (N=4)
COHORT 1: MIXED POPULATION
VIB7734 5 mg SC (N=6)
PLACEBO SC (N=2)

FIG. 10

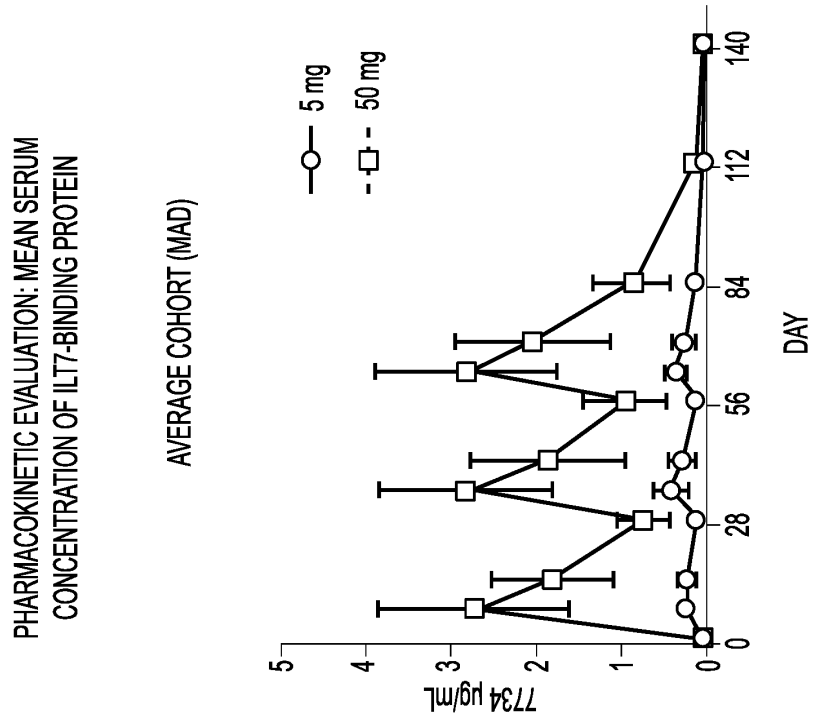


FIG. 11B

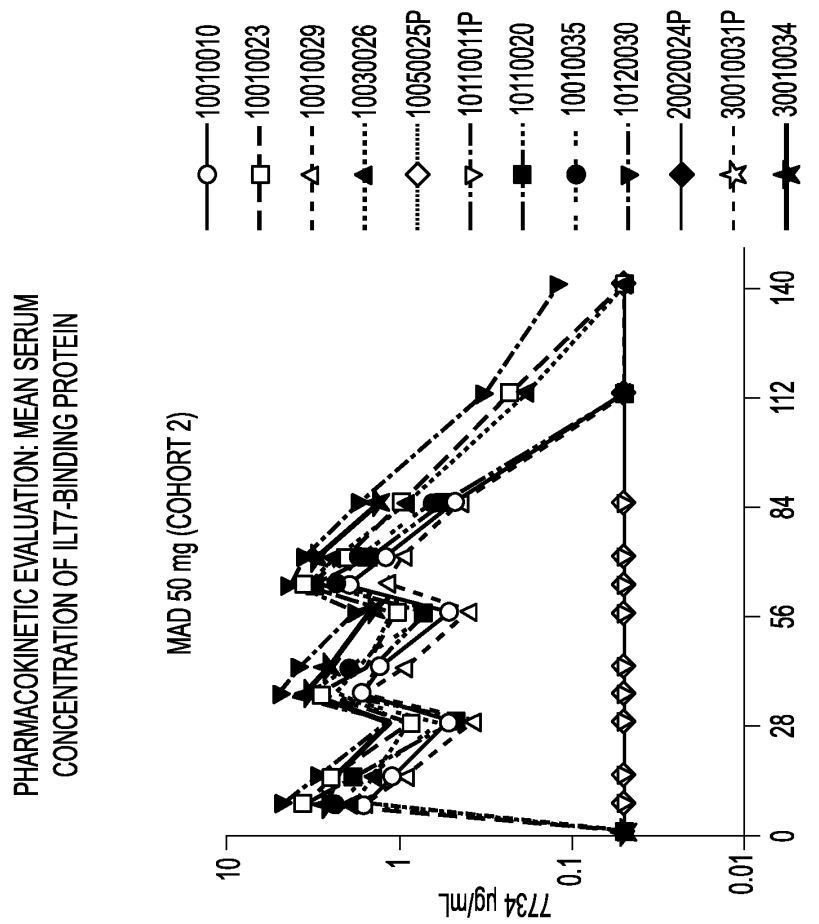


FIG. 11A

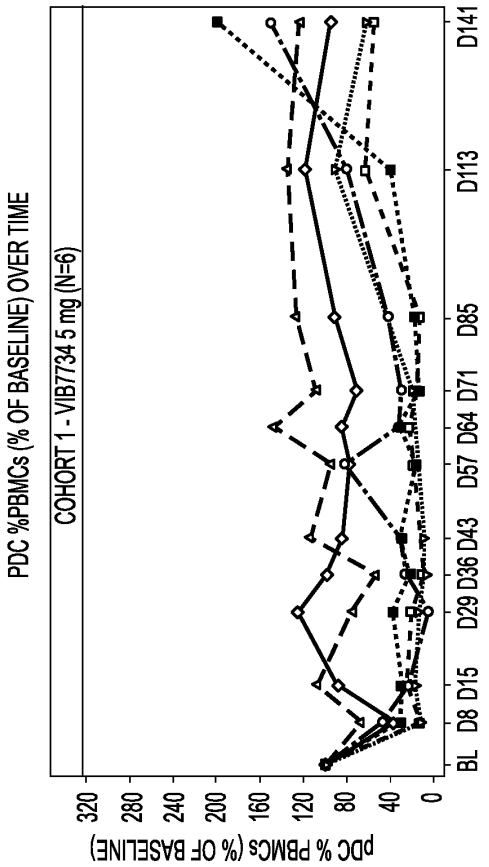


FIG. 12B

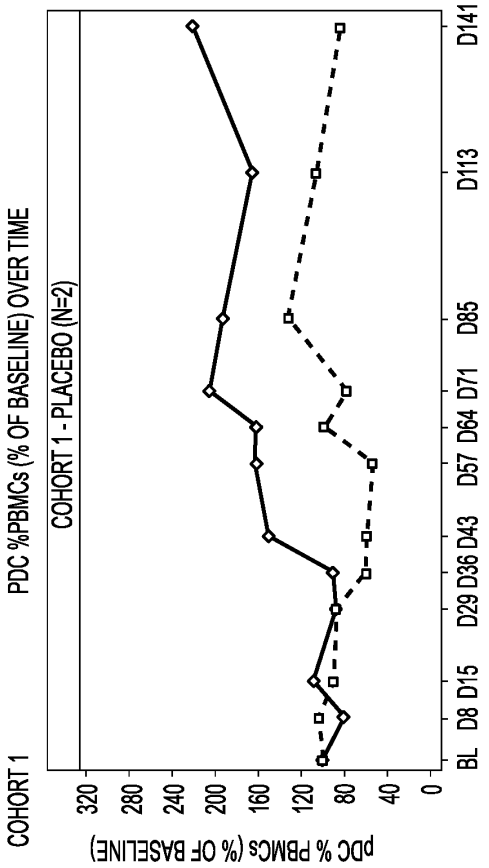


FIG. 12A

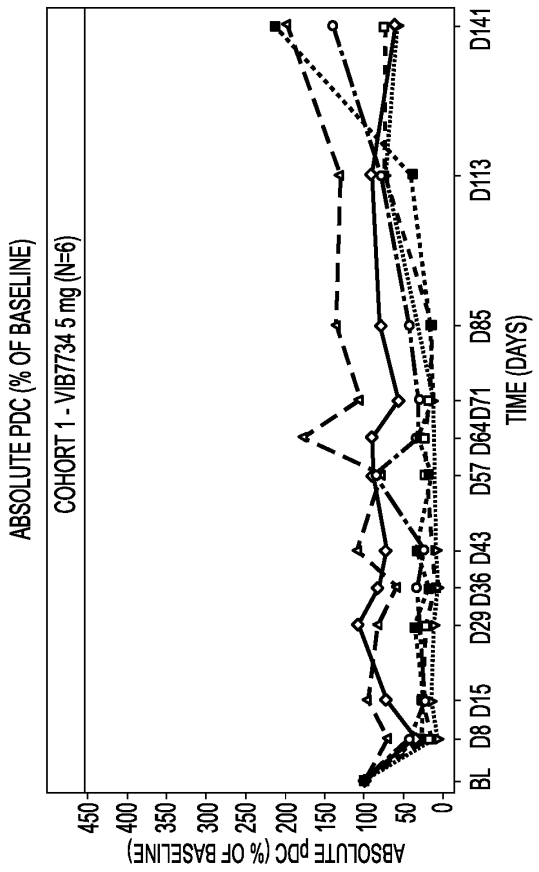


FIG. 13B

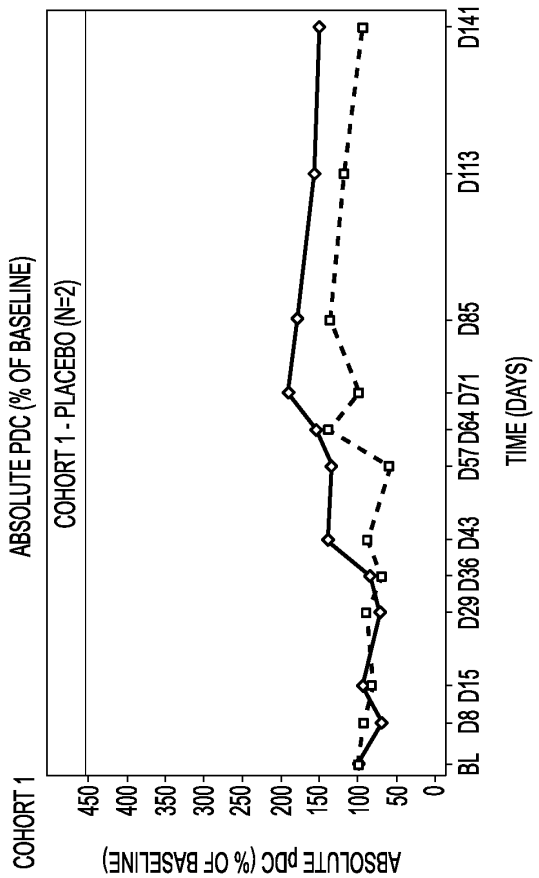


FIG. 13A

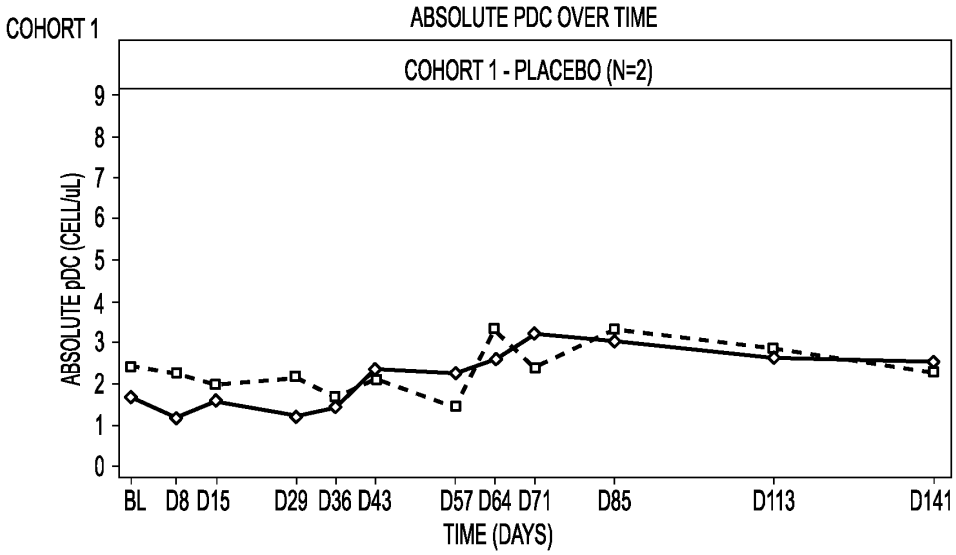


FIG. 14A

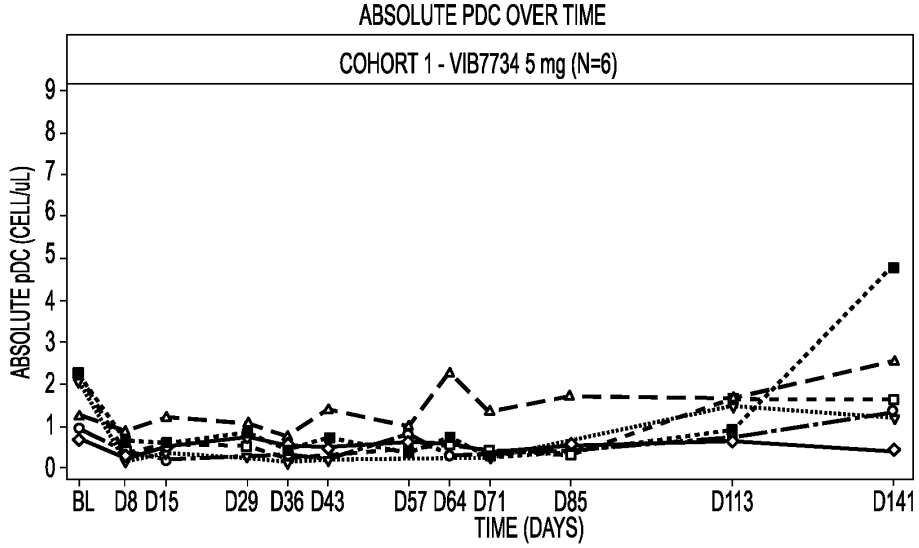


FIG. 14B

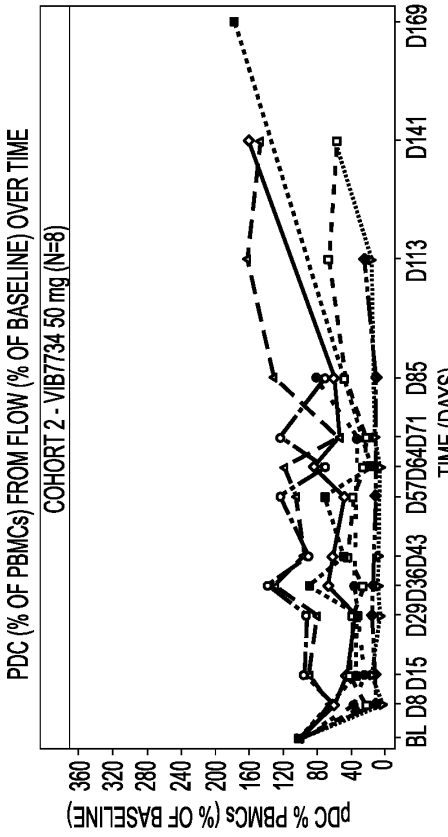


FIG. 15B

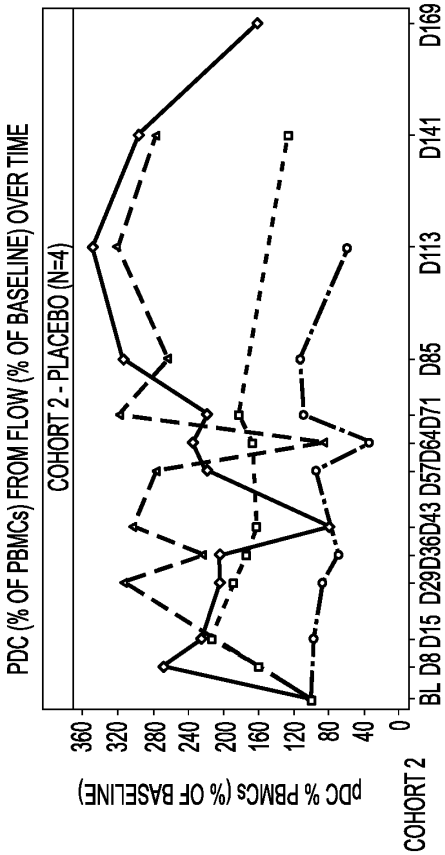


FIG. 15A

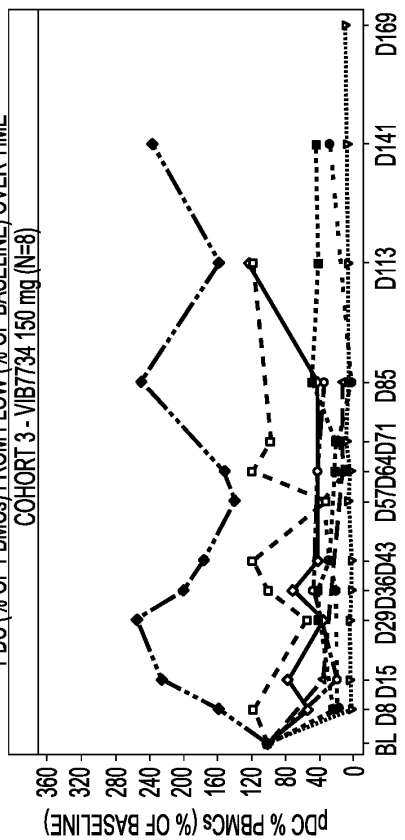


FIG. 15D

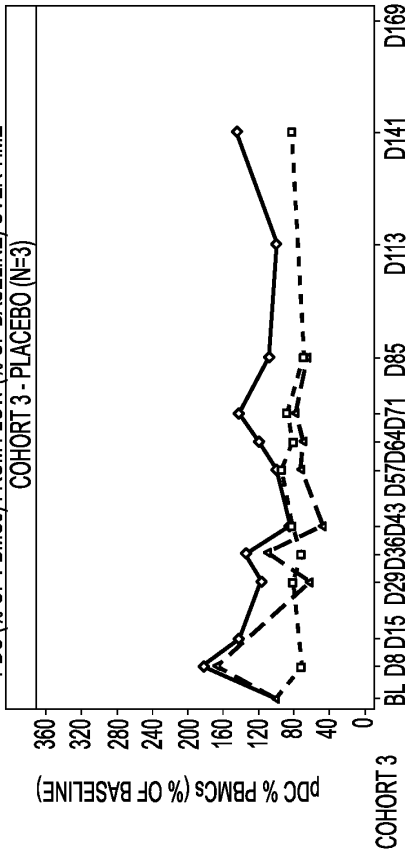


FIG. 15C

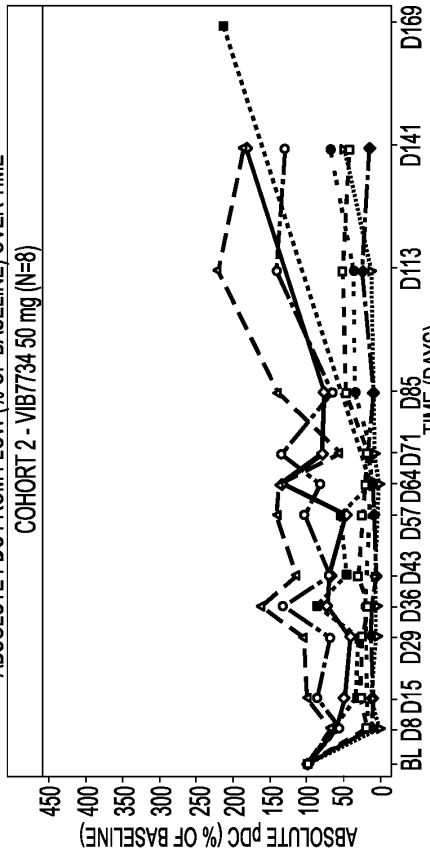


FIG. 16A

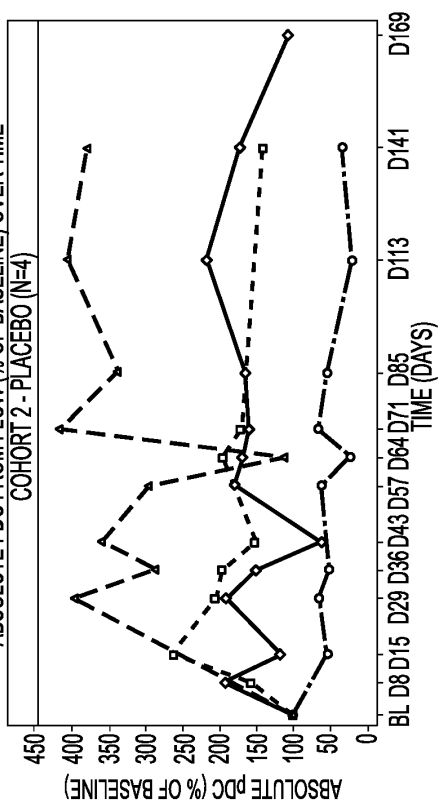


FIG. 16C

FIG. 16B

FIG. 16D

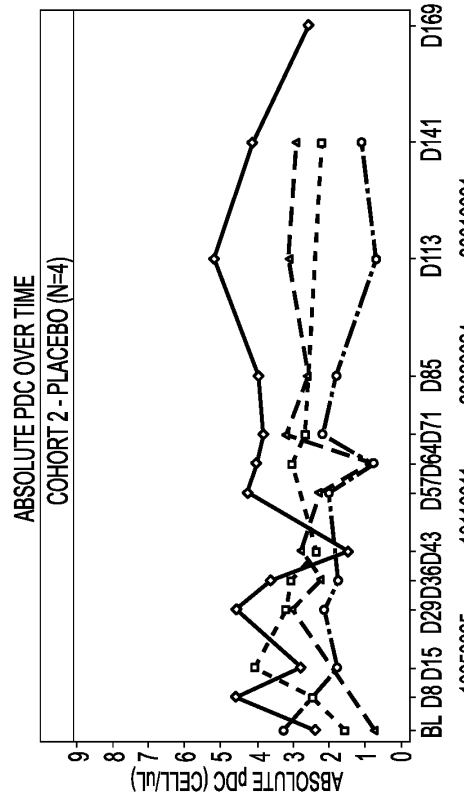


FIG. 17A

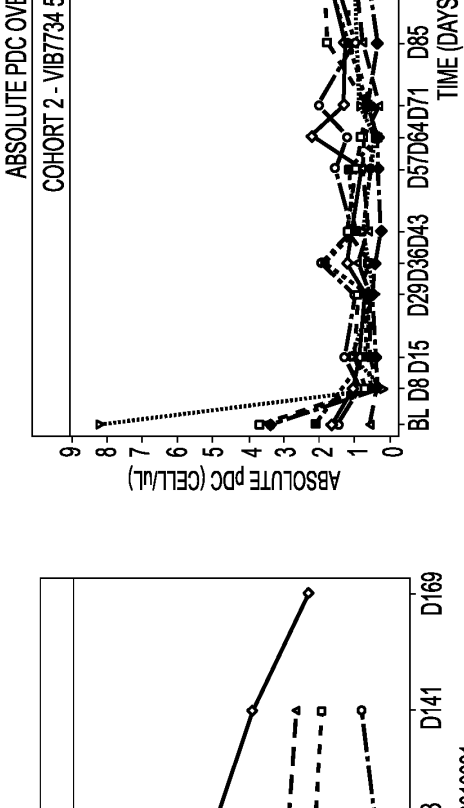


FIG. 17B

FIG. 17A

FIG. 17B

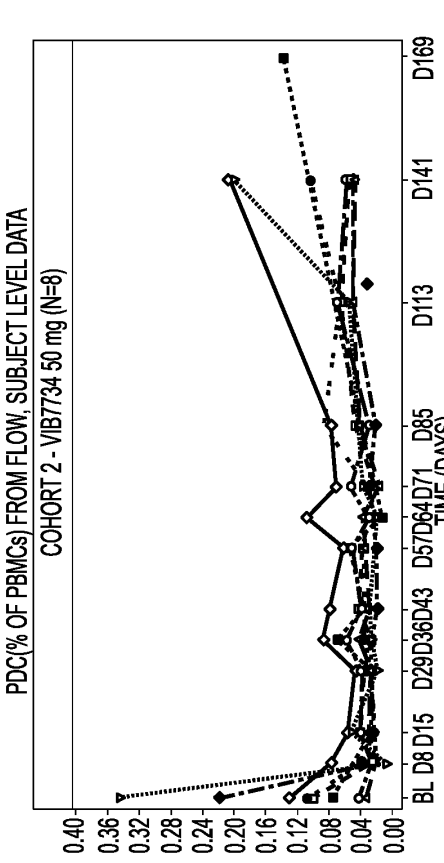


FIG. 18A

FIG. 18B

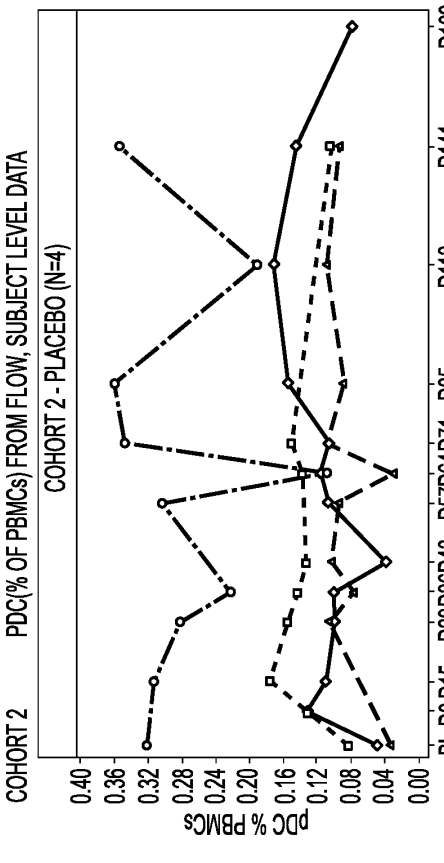


FIG. 18C

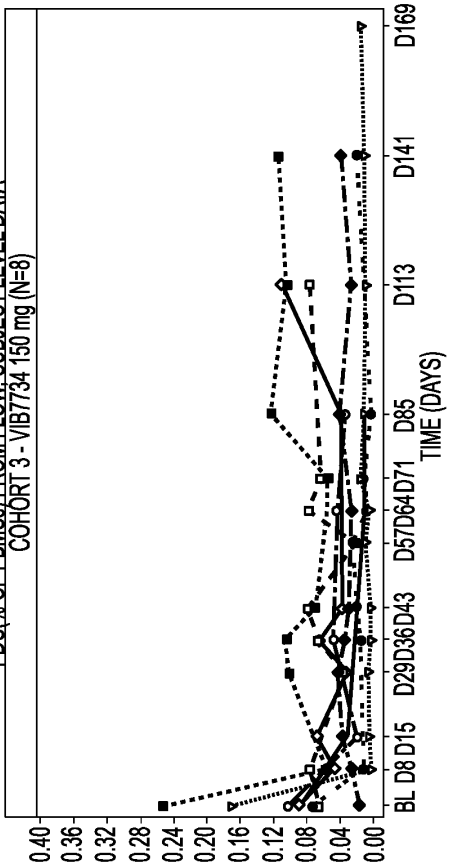
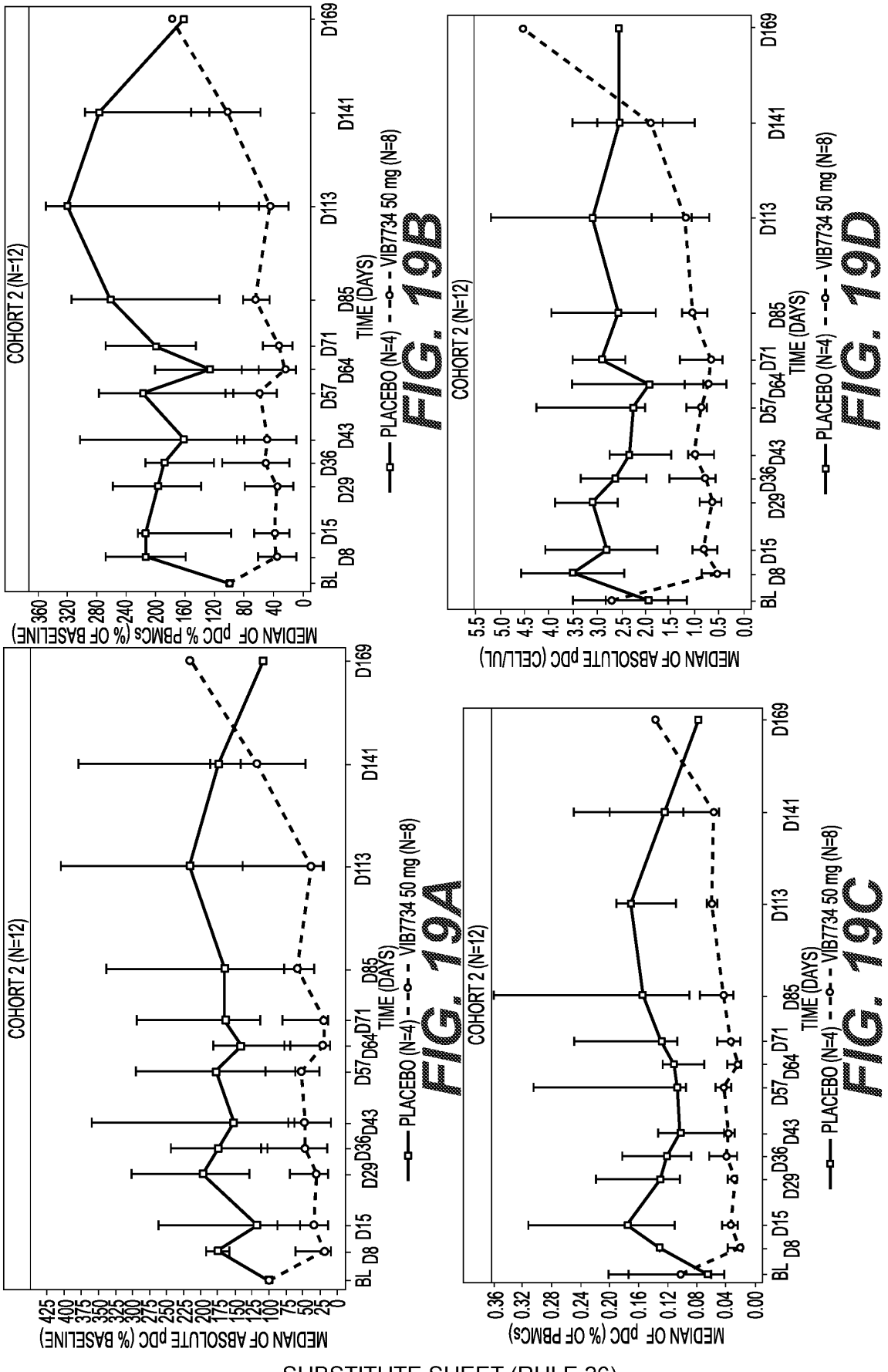
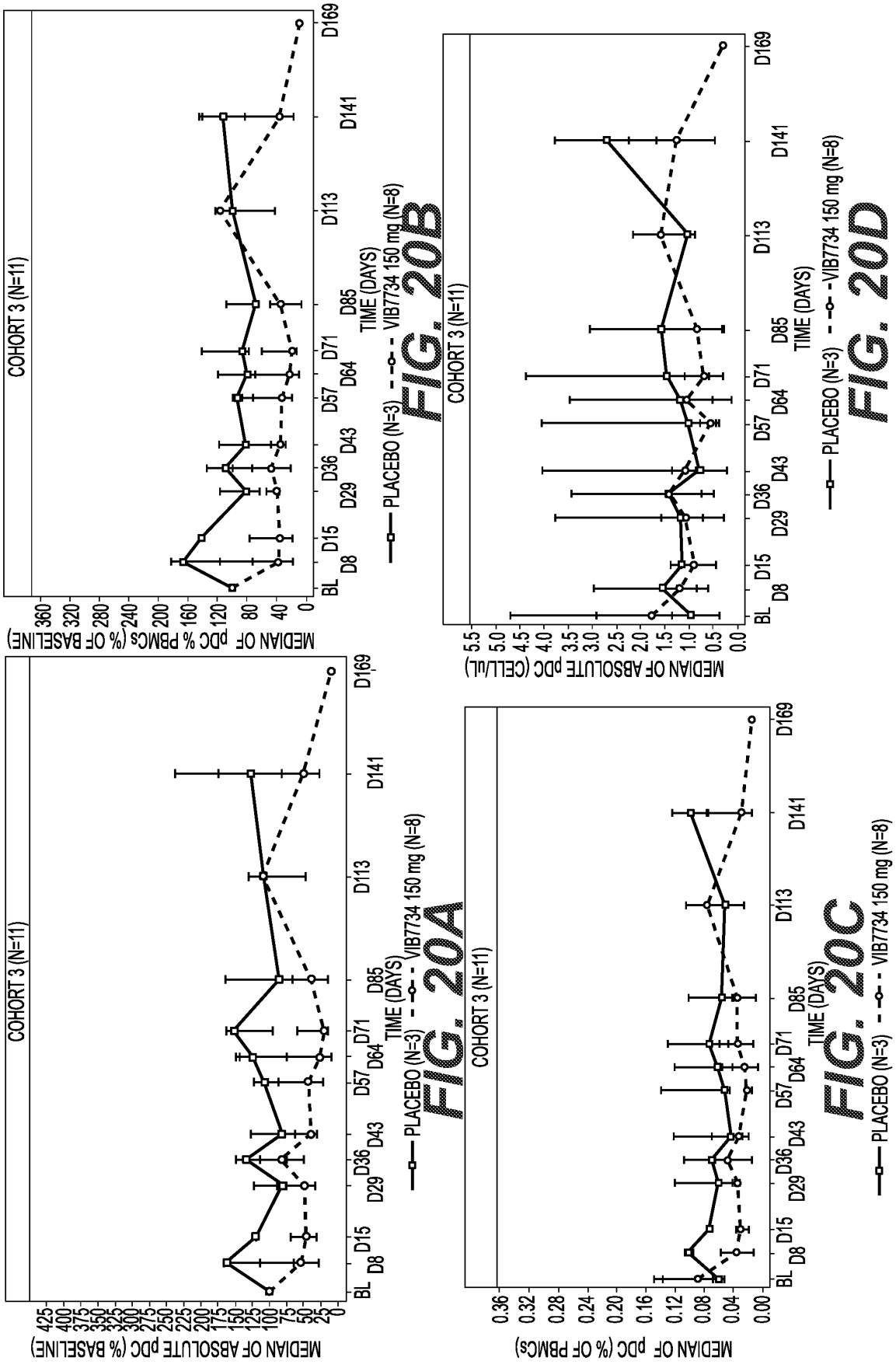


FIG. 18D


COHORT 2 (N=12)
MEDIAN OF ABSOLUTE pDC (% BASELINE)
425 400 375 350 325 300 275 250 225 200 175 150 125 100 75 50 25 0
BL D8 D15 D29 D36 D43 D57 D64 D71 D85 D113 D141 D169
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50 mg (N=8)
FIG. 19A
COHORT 2 (N=12)
MEDIAN OF pDC % PBMCs (% OF BASELINE)
360 320 280 240 200 160 120 80 40 0
BL D8 D15 D29 D36 D43 D57 D64 D71 D85 D113 D141 D169
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50 mg (N=8)
FIG. 19B
COHORT 2 (N=12)
MEDIAN OF pDC (% OF PBMCs)
0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04 0.00
BL D8 D15 D29 D36 D43 D57 D64 D71 D85 D113 D141 D169
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50 mg (N=8)
FIG. 19C
COHORT 2 (N=12)
MEDIAN OF ABSOLUTE pDC (CELL/UL)
5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0
BL D8 D15 D29 D36 D43 D57 D64 D71 D85 D113 D141 D169
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50 mg (N=8)
FIG. 19D


COHORT 3 (N=11)
MEDIAN OF ABSOLUTE pDC (% BASELINE)
425
400
375
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
BL
D8
D15
D29
D36
D43
D57
D64
D71
D85
D113
D141
D169
TIME (DAYS)
PLACEBO (N=3)
VIB7734 150 mg (N=8)
FIG. 20A
COHORT 3 (N=11)
MEDIAN OF pDC % PBMCs (% OF BASELINE)
360
320
280
240
200
160
120
80
40
0
FIG. 20B
COHORT 3 (N=11)
MEDIAN OF ABSOLUTE pDC (CELL/uL)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
FIG. 20D
COHORT 3 (N=11)
MEDIAN OF pDC (% OF PBMCs)
0.36
0.32
0.28
0.24
0.20
0.16
0.12
0.08
0.04
0.00
FIG. 20C

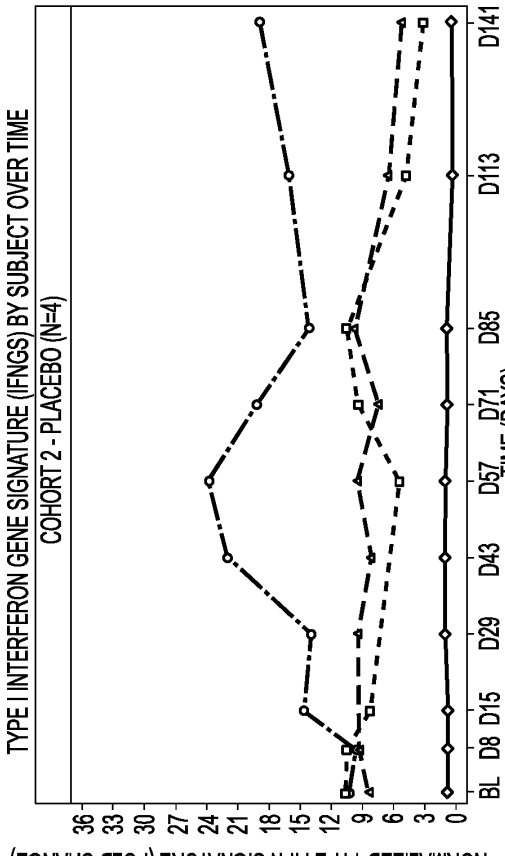


FIG. 21A

FIG. 21B

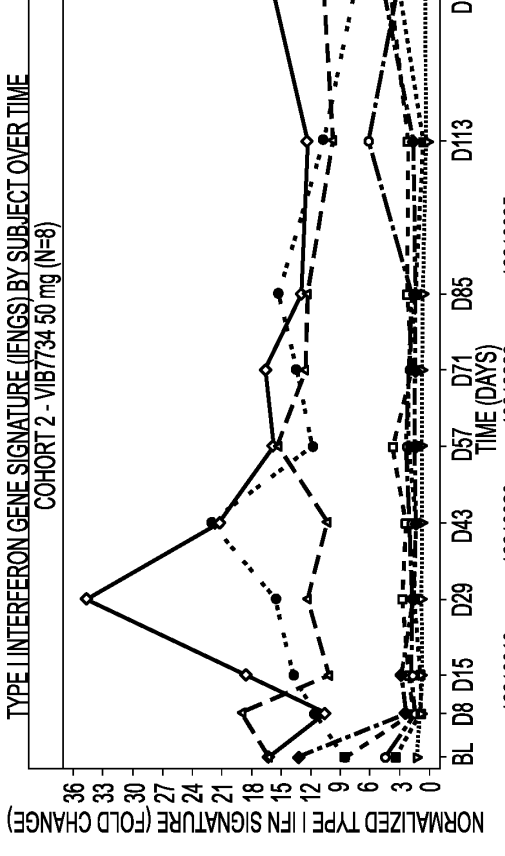


FIG. 21C

FIG. 21D

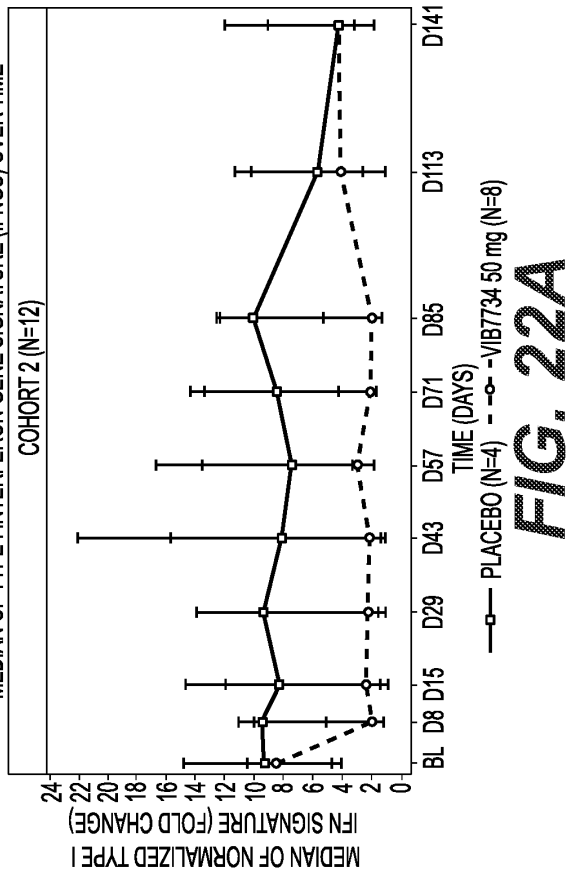


FIG. 22A

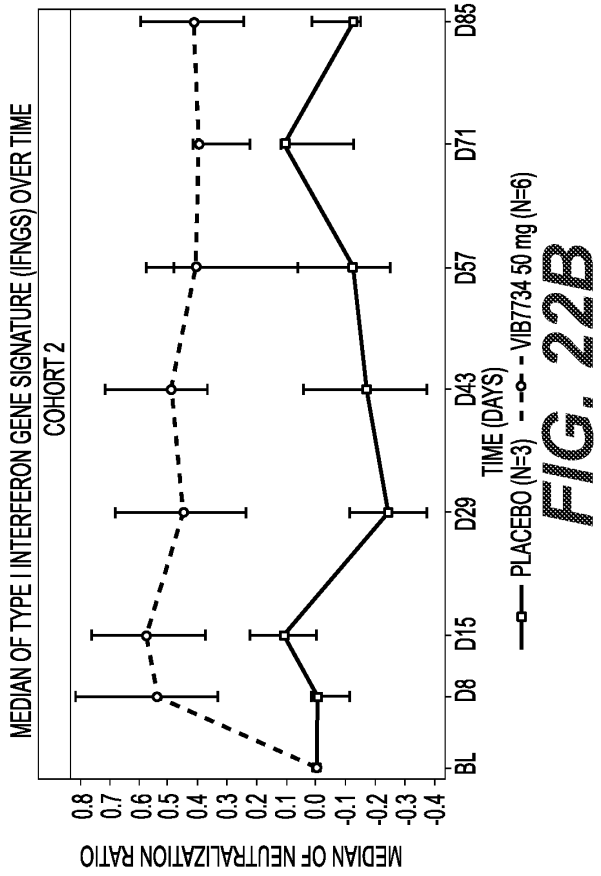


FIG. 22B

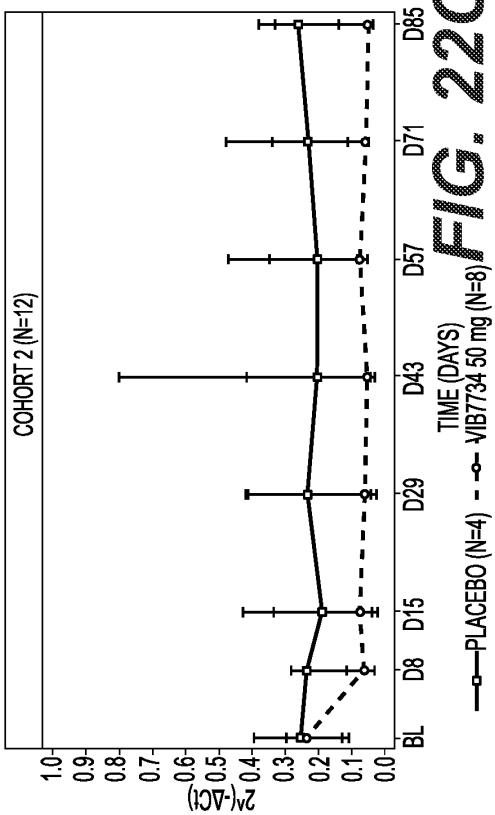


FIG. 22C

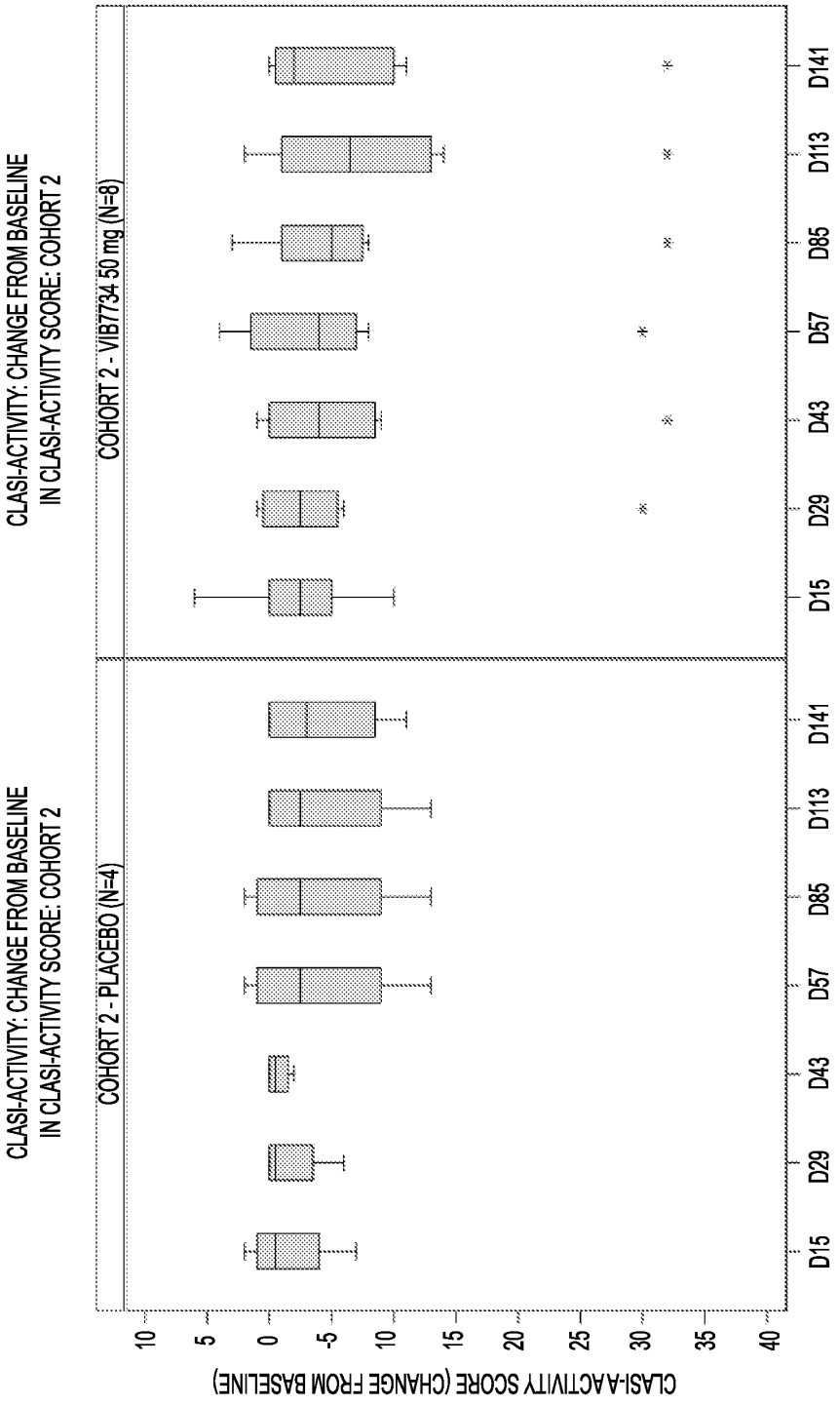


FIG. 23A

FIG. 23B

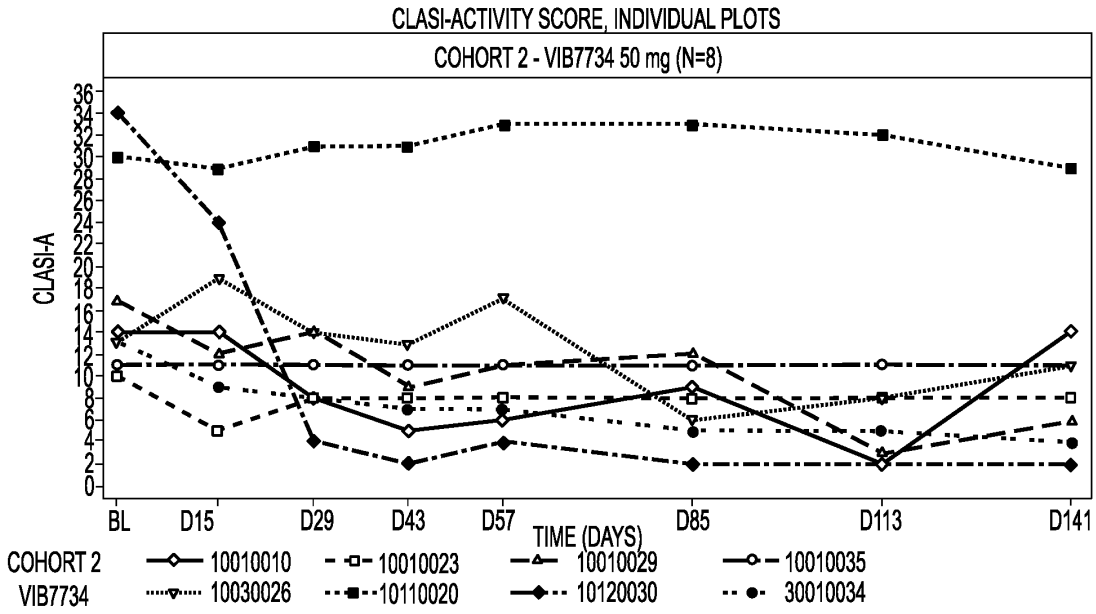
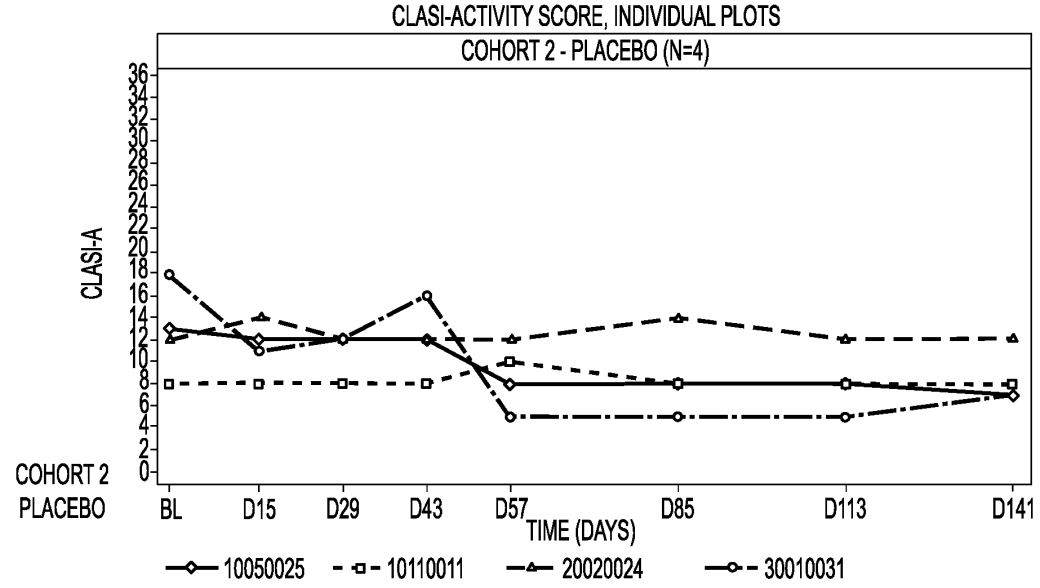


FIG. 24A



2 OF 4 PLACEBO PATIENTS SHOWED
A SPONTANEOUS IMPROVEMENT
BETWEEN DAYS 43 & 57

FIG. 24B

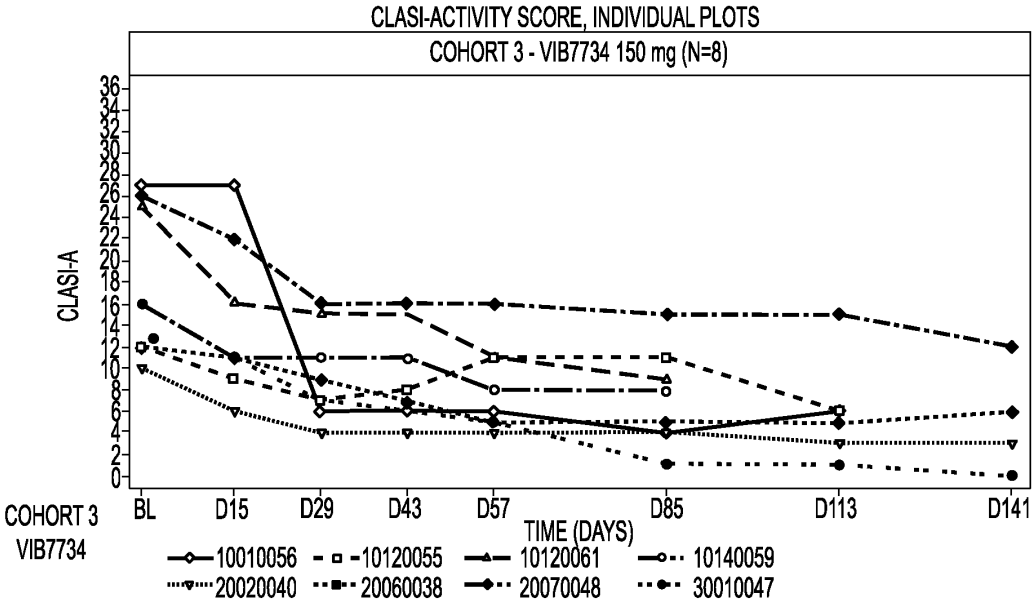


FIG. 24C

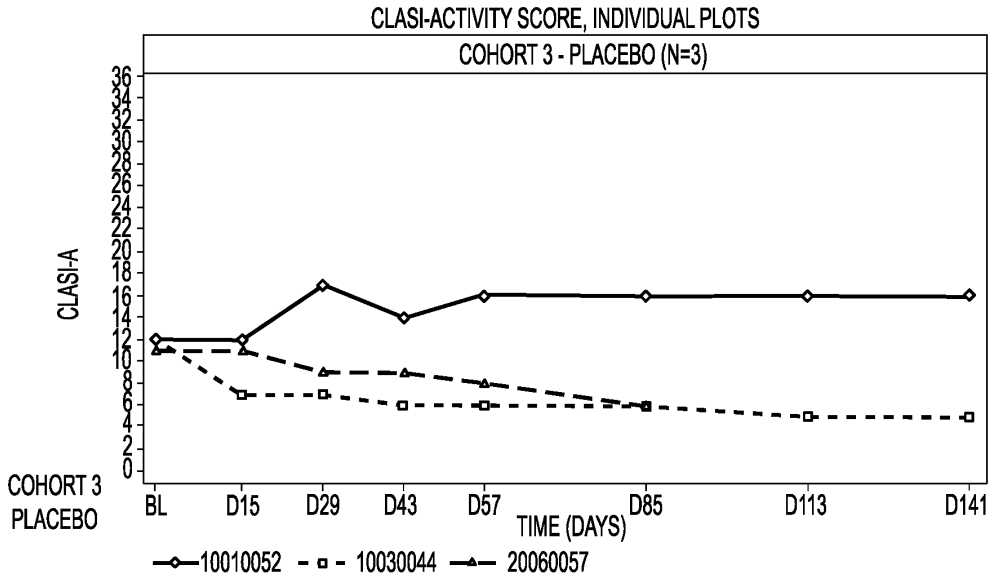


FIG. 24D

2 OF 4 PLACEBO PATIENTS SHOWED
A SPONTANEOUS IMPROVEMENT
BETWEEN DAYS 43 & 57

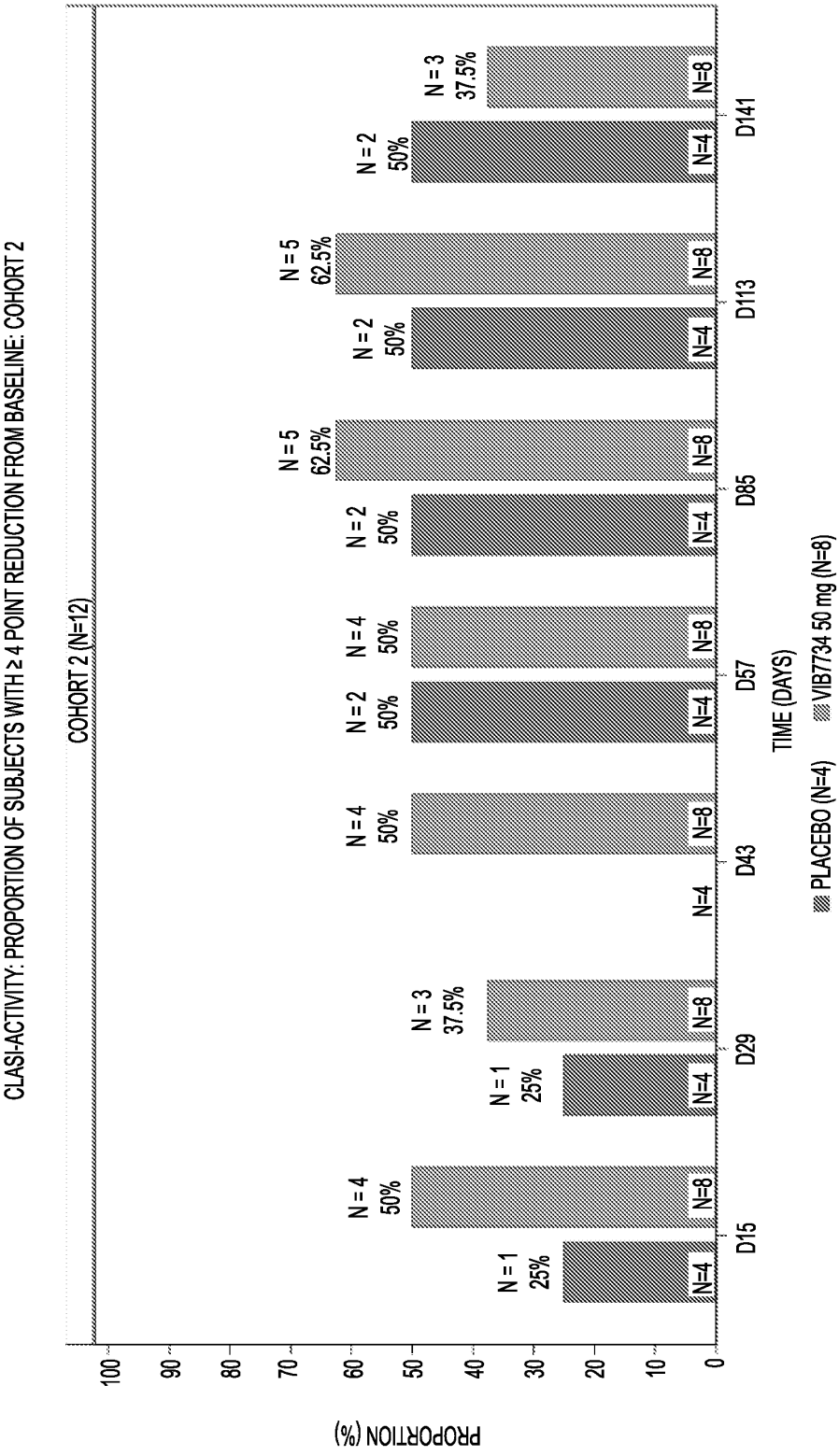

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 4 POINT REDUCTION FROM BASELINE: COHORT 2
COHORT 2 (N=12)
PROPORTION (%)
0
10
20
30
40
50
60
70
80
90
100
D15
D29
D43
D57
D85
D113
D141
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50 mg (N=8)
N = 1
25%
N=4
N = 4
50%
N=8
N = 3
37.5%
N=8
N = 1
25%
N=4
N = 4
50%
N=8
N = 2
50%
N=4
N = 4
50%
N=8
N = 5
62.5%
N=8
N = 2
50%
N=4
N = 5
62.5%
N=8
N = 2
50%
N=4
N = 3
37.5%
N=8

FIG. 25

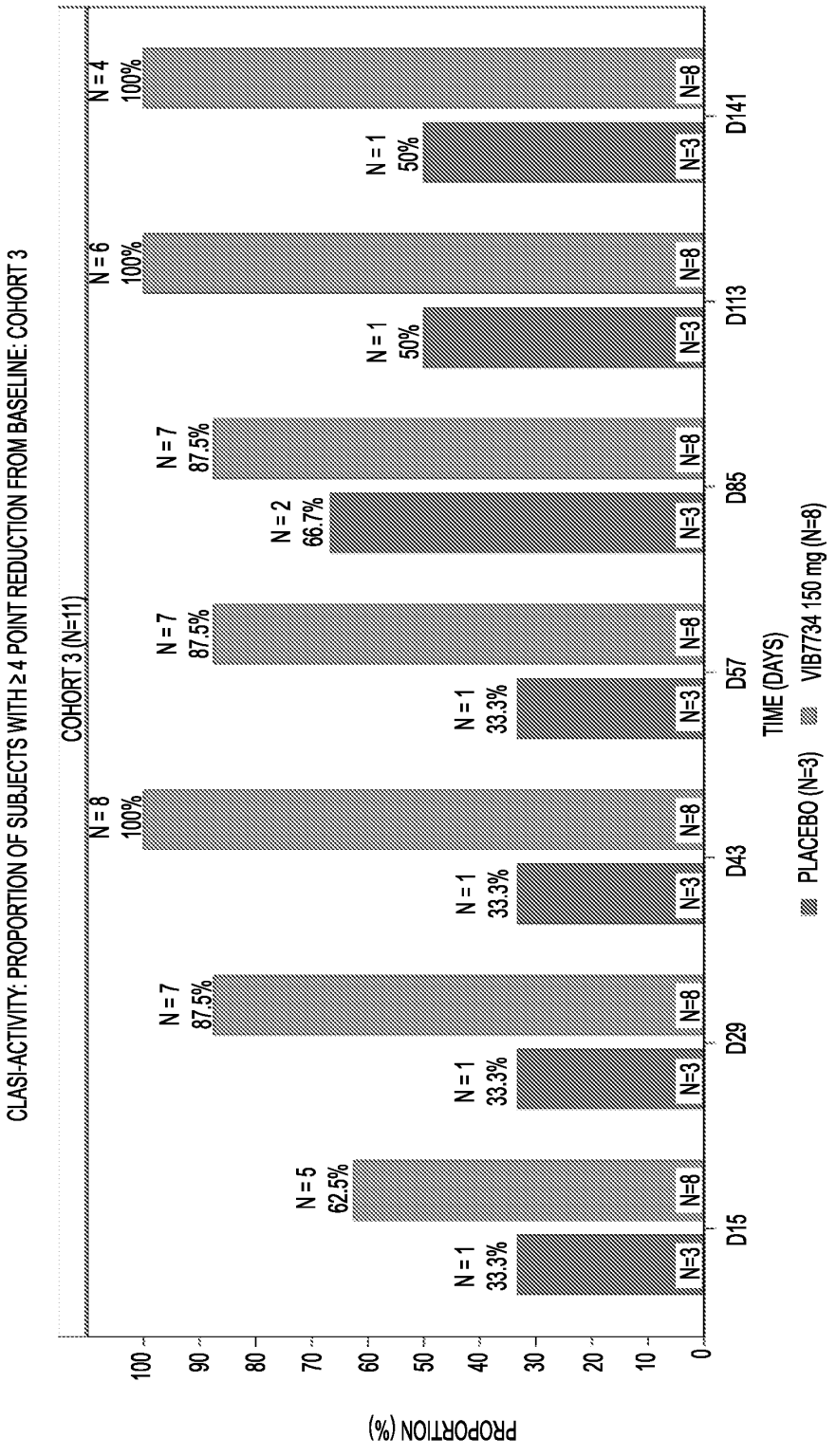

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 4 POINT REDUCTION FROM BASELINE: COHORT 3
COHORT 3 (N=11)
PROPORTION (%)
TIME (DAYS)
PLACEBO (N=3)
VIB7734 150 mg (N=8)
D15
D29
D43
D57
D85
D113
D141
N = 1
33.3%
N=3
N = 5
62.5%
N=8
N = 7
87.5%
N = 8
100%
N = 2
66.7%
N = 6
100%
N = 4
100%
N = 1
50%

FIG. 26

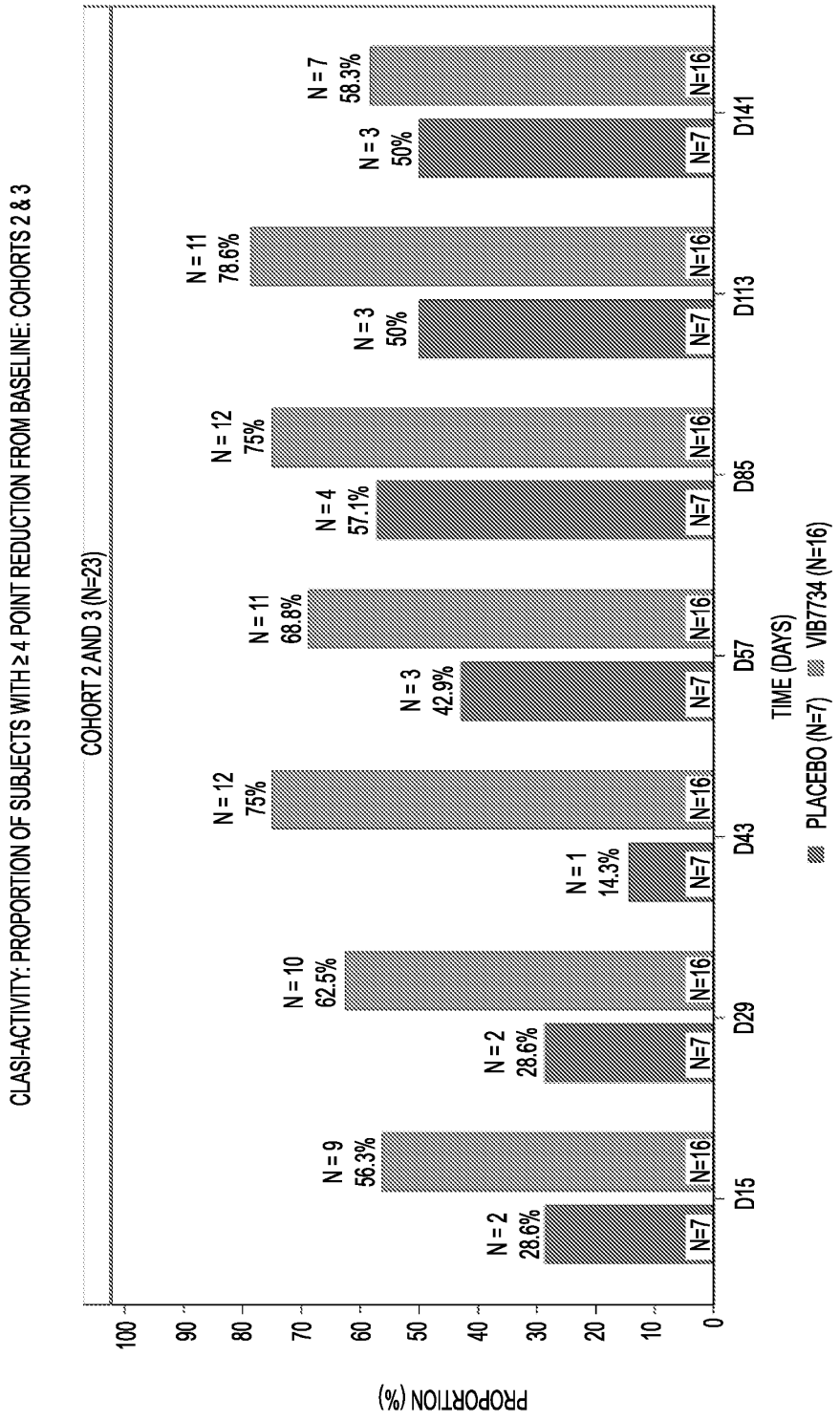

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 4 POINT REDUCTION FROM BASELINE: COHORTS 2 & 3
COHORT 2 AND 3 (N=23)
PROPORTION (%)
0
10
20
30
40
50
60
70
80
90
100
N = 2 28.6% N=7
N = 9 56.3% N=16
N = 2 28.6% N=7
N = 10 62.5% N=16
N = 1 14.3% N=7
N = 12 75% N=16
N = 3 42.9% N=7
N = 11 68.8% N=16
N = 4 57.1% N=7
N = 12 75% N=16
N = 3 50% N=7
N = 11 78.6% N=16
N = 3 50% N=7
N = 7 58.3% N=16
D15
D29
D43
D57
D85
D113
D141
TIME (DAYS)
PLACEBO (N=7)
VIB7734 (N=16)

FIG. 27

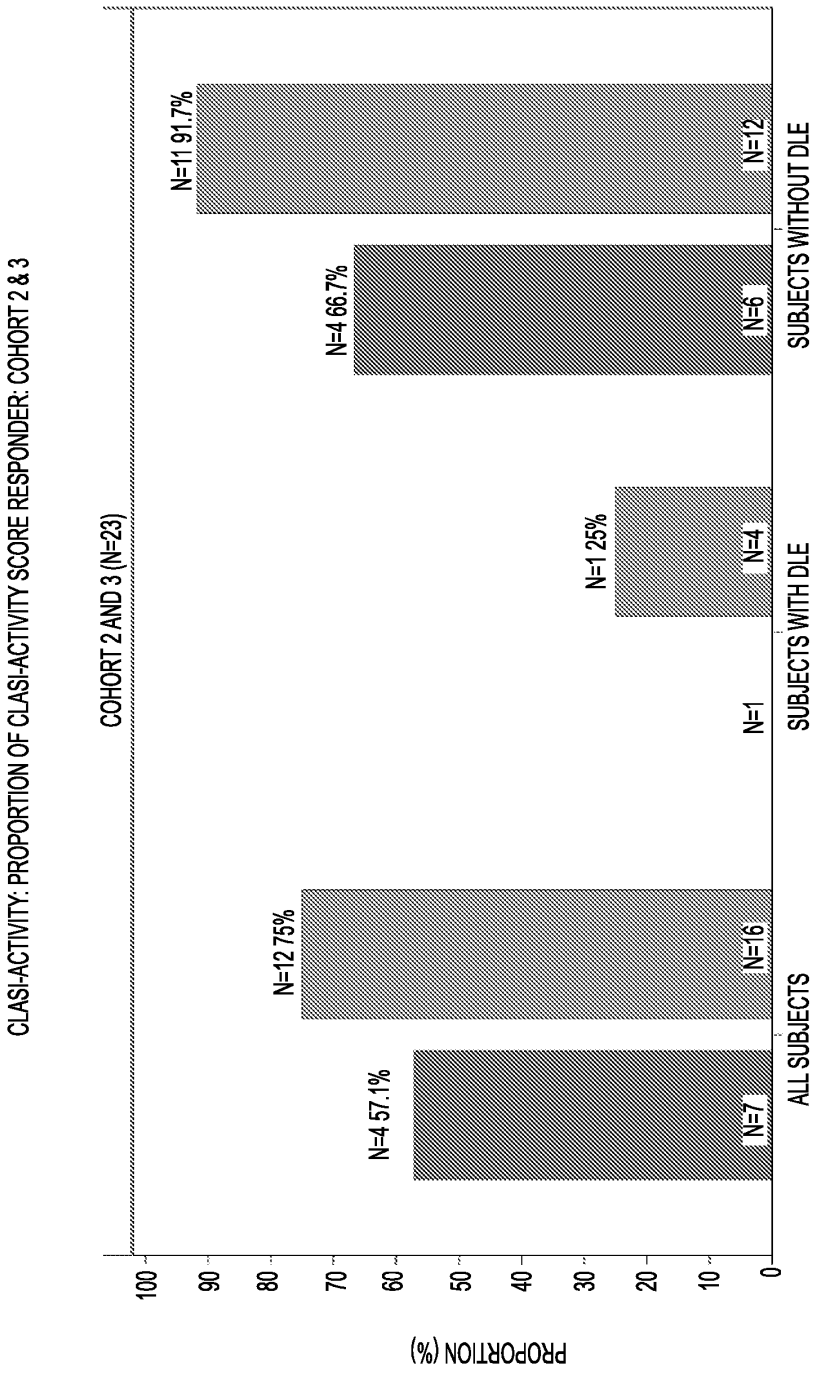

CLASI-ACTIVITY: PROPORTION OF CLASI-ACTIVITY SCORE RESPONDER: COHORT 2 & 3
COHORT 2 AND 3 (N=23)
PROPORTION (%)
100
90
80
70
60
50
40
30
20
10
0
N=4 57.1%
N=7
N=12 75%
N=16
ALL SUBJECTS
N=1 25%
N=1
N=4
SUBJECTS WITH DLE
N=4 66.7%
N=6
N=11 91.7%
N=12
SUBJECTS WITHOUT DLE
PLACEBO
VIB7734

FIG. 28

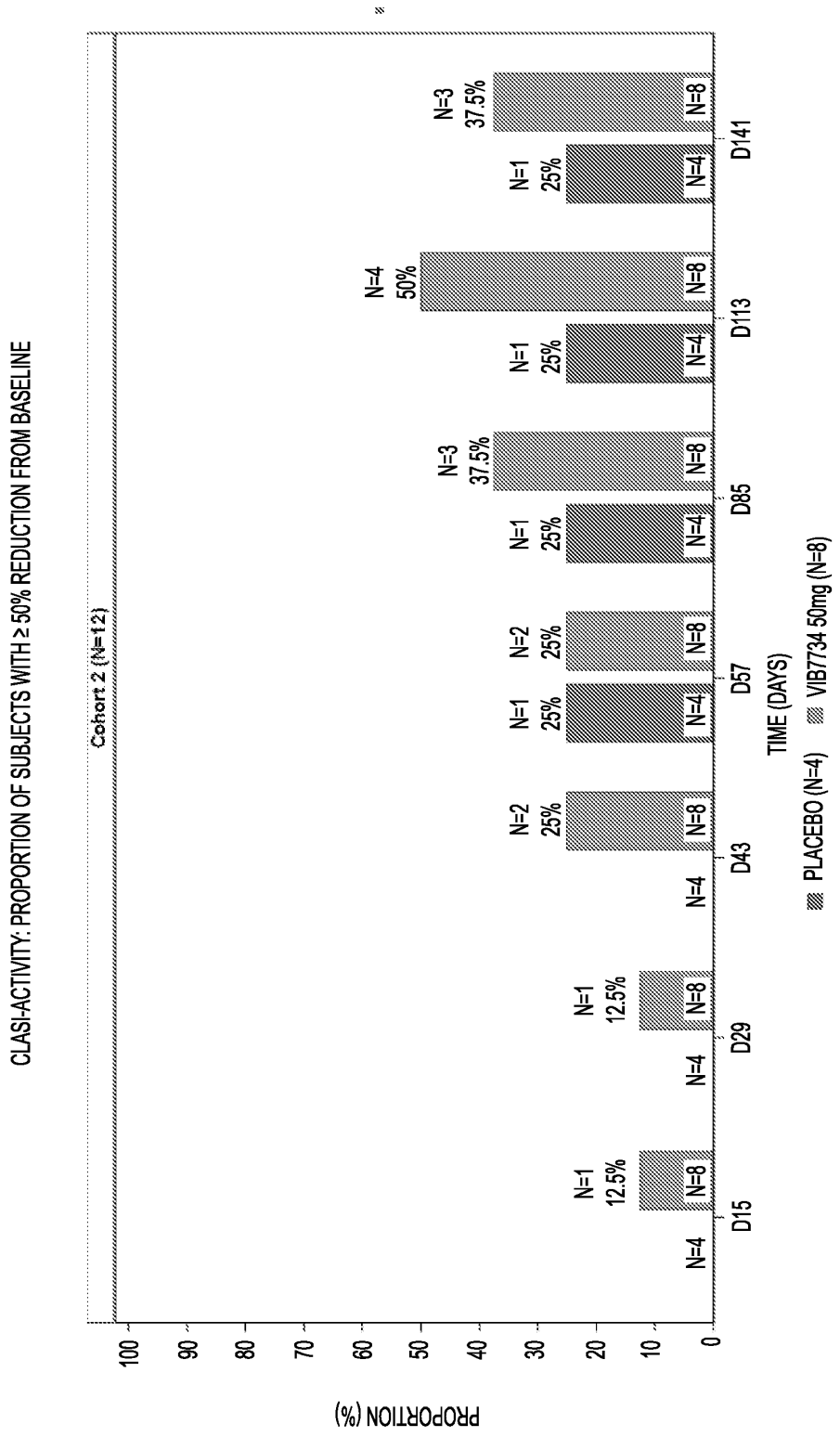

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 50% REDUCTION FROM BASELINE
Cohort 2 (N=12)
PROPORTION (%)
0
10
20
30
40
50
60
70
80
90
100
N=4
N=1
12.5%
N=8
N=4
N=1
12.5%
N=8
N=4
N=2
25%
N=8
N=4
N=1
25%
N=2
25%
N=8
N=4
N=1
25%
N=3
37.5%
N=8
N=4
N=1
25%
N=4
50%
N=8
N=4
N=1
25%
N=3
37.5%
N=8
D15
D29
D43
D57
D85
D113
D141
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50mg (N=8)

FIG. 29

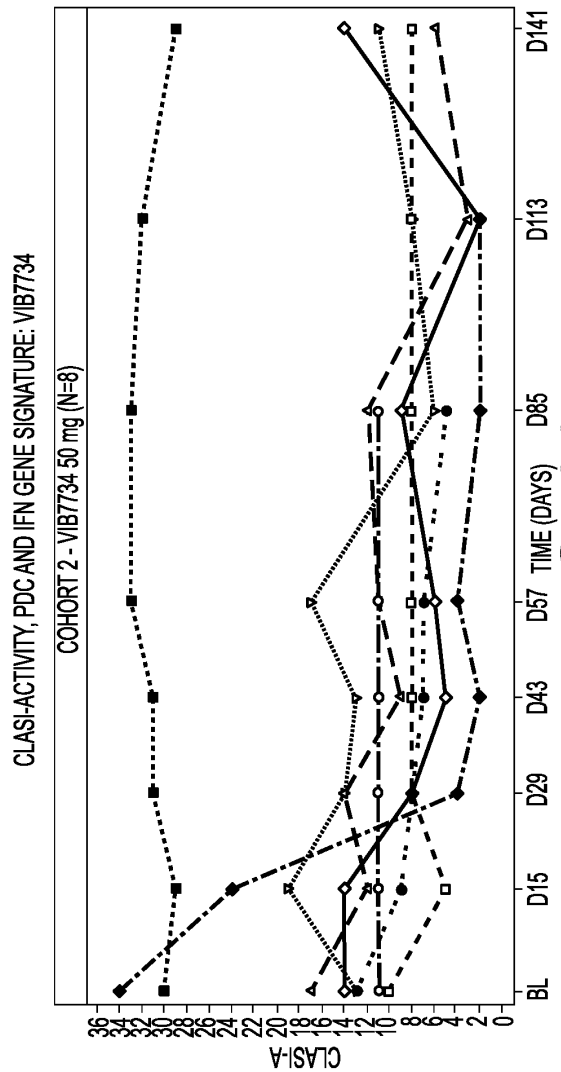


FIG. 30A

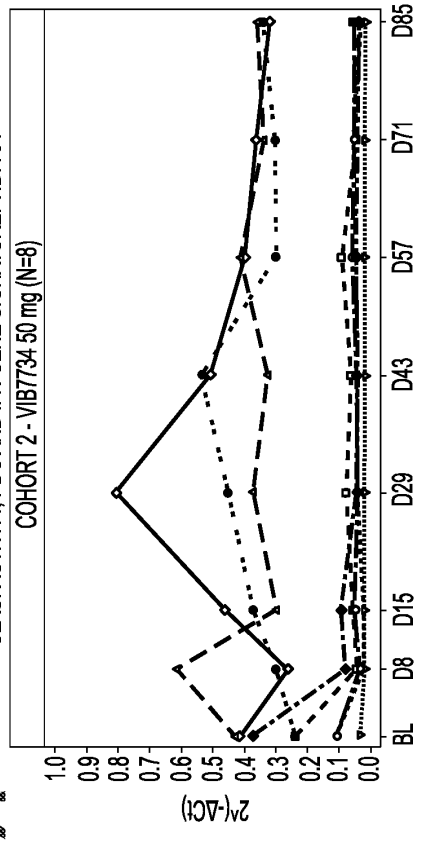


FIG. 30C

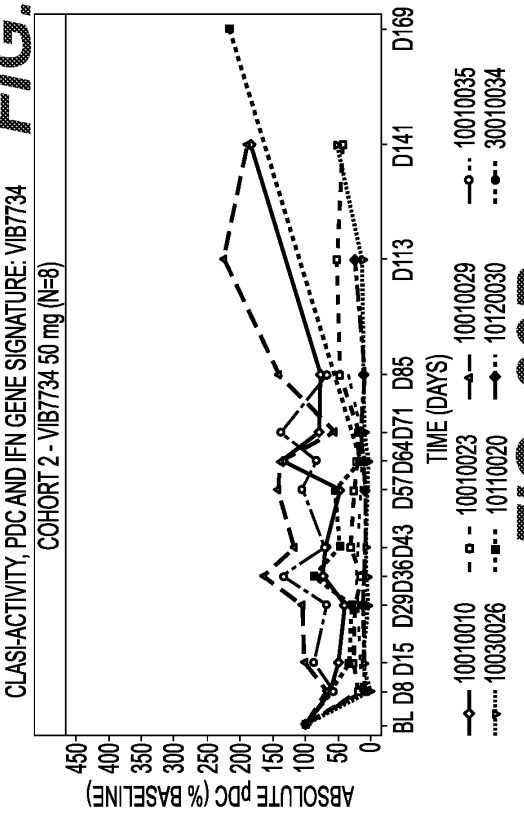


FIG. 30B

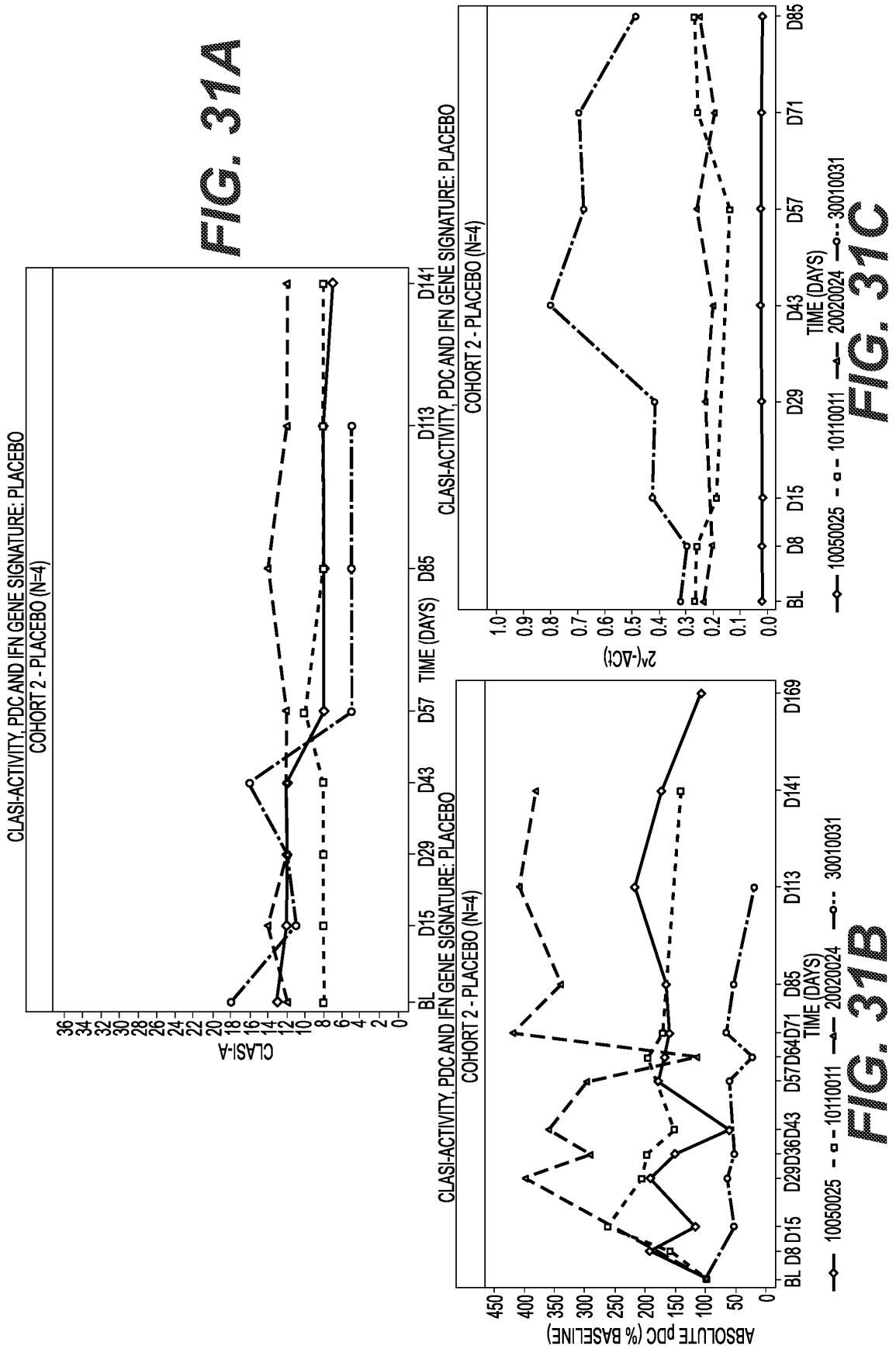


FIG. 31A

FIG. 31C

FIG. 31B

Subject level exploratory data synthesis

Arm	CLASI Responder?[1]	IFN high?[2]	IFN responder?[3]	pDCs[4]
VIB7734 50 mg	Yes	Yes	No	Responded
	Yes	Yes	No	Low from start, no change
	Yes[5]	No	N/A	Responded
	Yes[6]	Yes	Yes	Responded
	No	Yes	Yes	Responded
	No	--	--	Low from start, modest response
	No	No	N/A	Responded
Placebo	Yes	Yes	No	No change
	Yes	--	--	Modest reduction
	No	Yes	No	No change
	No	No	N/A	No change

1. DEFINED AS >50% IMPROVEMENT OR 4-POINT IMPROVEMENT AT DAY 85 (OR LAST VISIT IF HAVE NOT REACHED DAY 85)
2. DEFINED AS BASELINE FOLD CHANGE >=4.
3. DEFINED AS SUSTAINED REDUCTION OF 50% FROM BASELINE. N/A = NOT APPLICABLE SINCE IFN RESPONSE CAN ONLY BE MEASURED IN BASELINE IFN HIGH SUBJECT.
4. SUBJECTIVE INTERPRETATION OF pDC RESPONSE.
5. SUBJECT WITH QUESTIONABLE RESPONSE SINCE ONLY LAST DATAPOINT (DAY 85) SHOWED IMPROVEMENT.
6. "SUPER RESPONDER" SUBJECT

FIG. 32

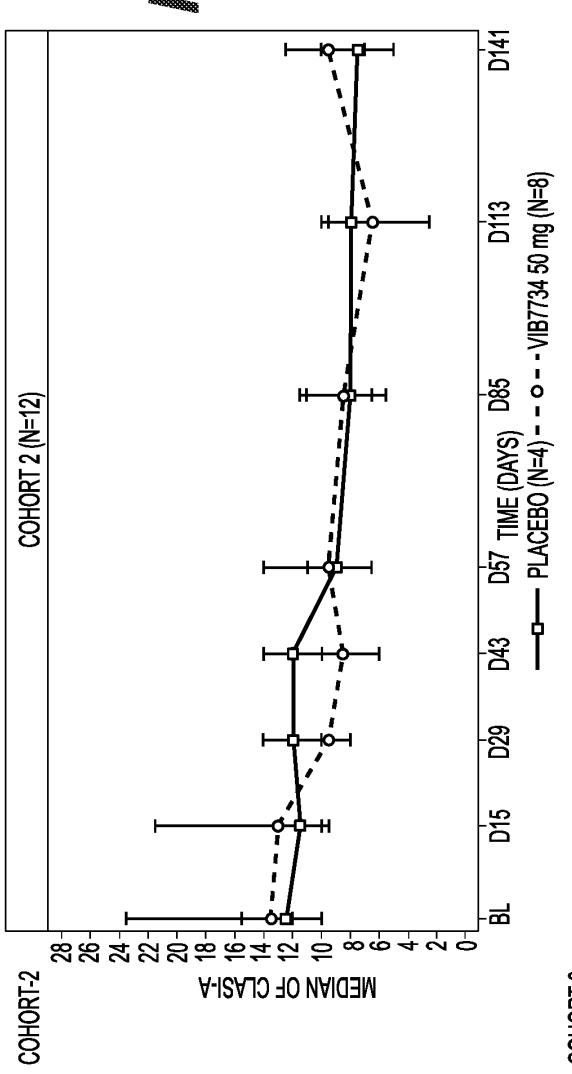
CLASI–A Score Over Time

	Median Change in CLASI-A from Baseline at Day 85	
	VIB7734	Placebo
Cohort 2	-5	-2.5
Cohort 3	-9.5	-5

Cohort 2 Least Squares mean difference between VIB7734 and placebo arm at Day 85 = 0.14; 95% CI (-9.86, 10.14, p=0.977)

Cohort 3 Least Squares mean difference between VIB7734 and placebo arm at Day 85 = - 5.12; 95% CI (-11.49, 1.24, p=0.108)

FIG. 33A



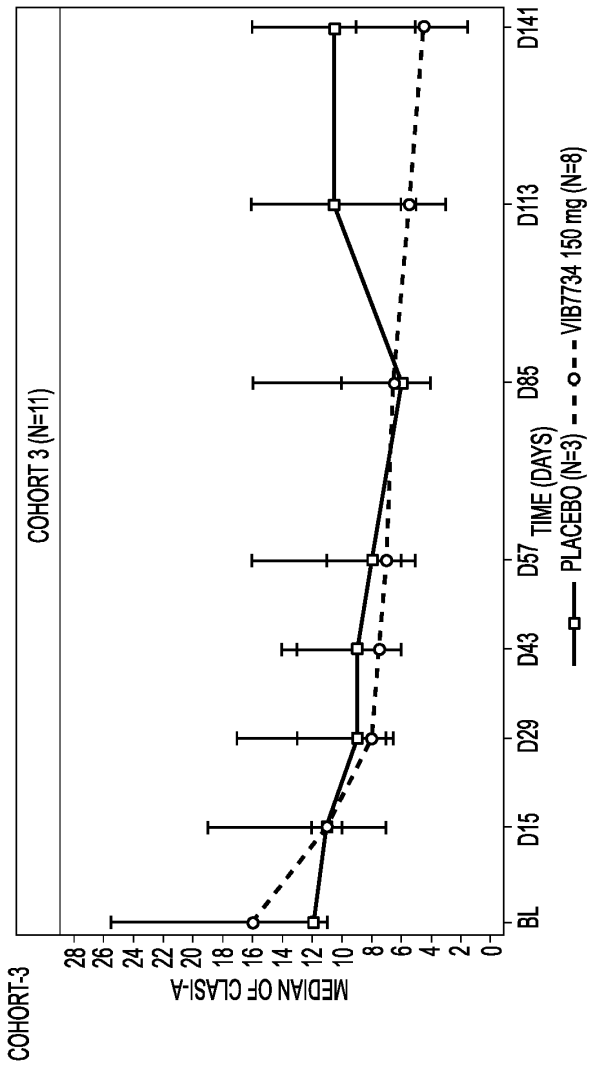


FIG. 33B

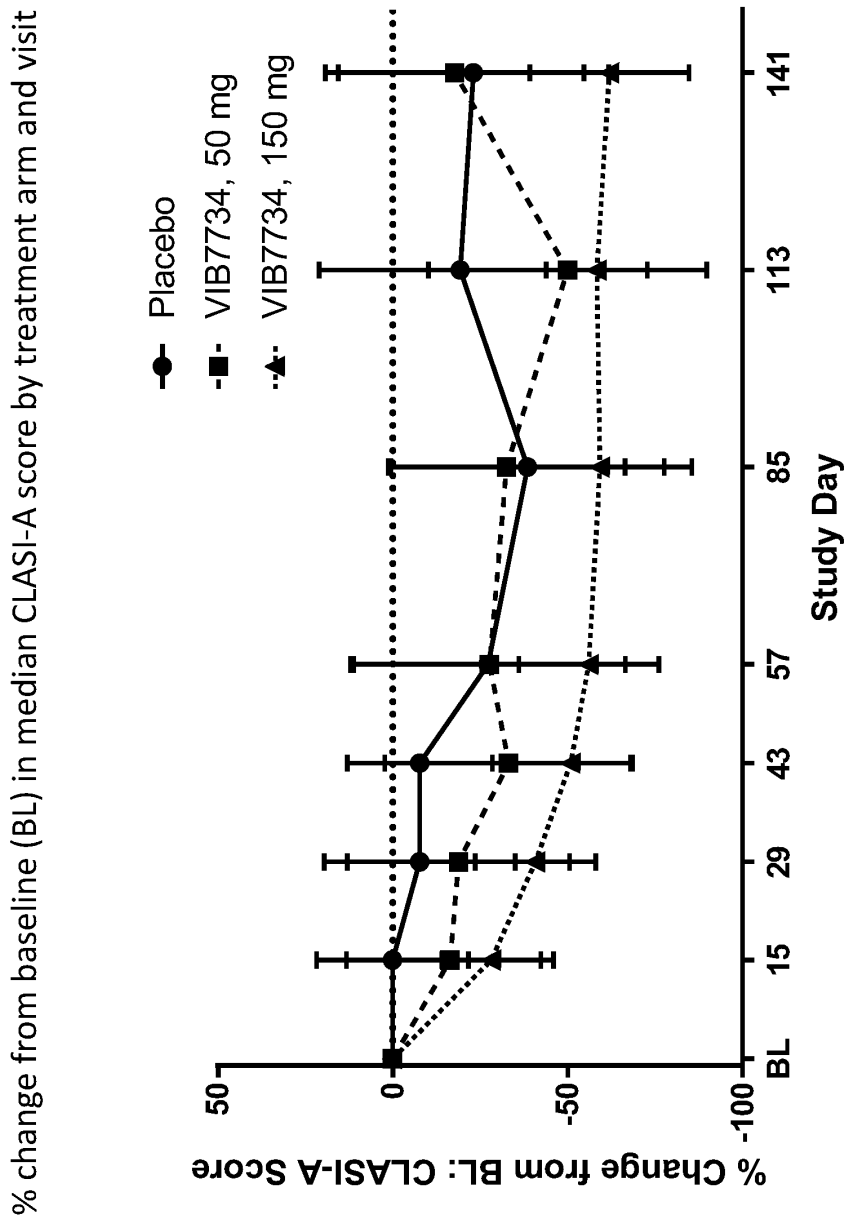

% change from baseline (BL) in median CLASI-A score by treatment arm and visit
Placebo
VIB7734, 50 mg
VIB7734, 150 mg
% Change from BL: CLASI-A Score
50
0
-50
-100
BL
15
29
43
57
85
113
141
Study Day

FIG. 33C

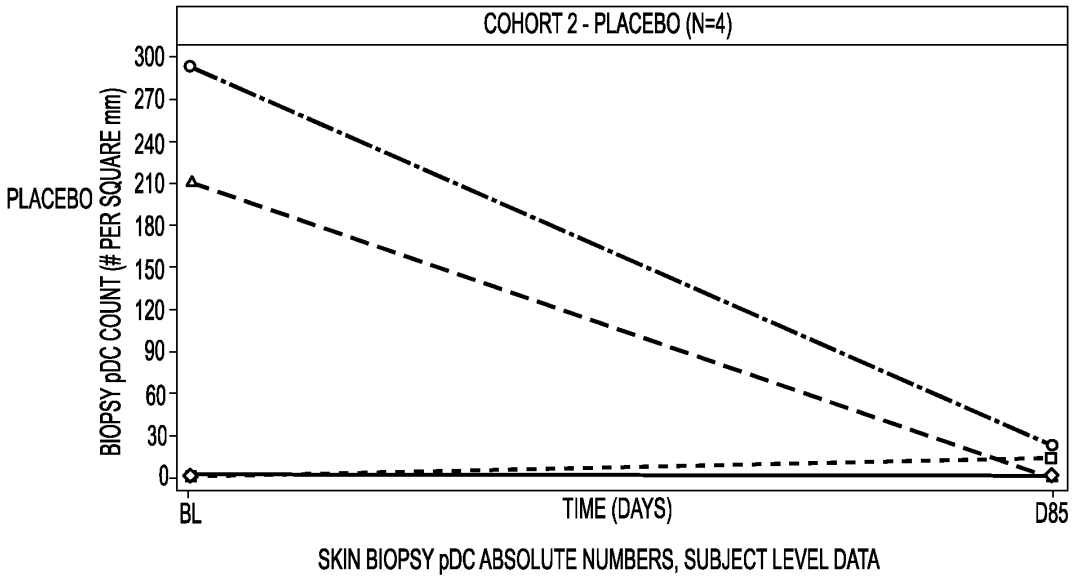


FIG. 34A

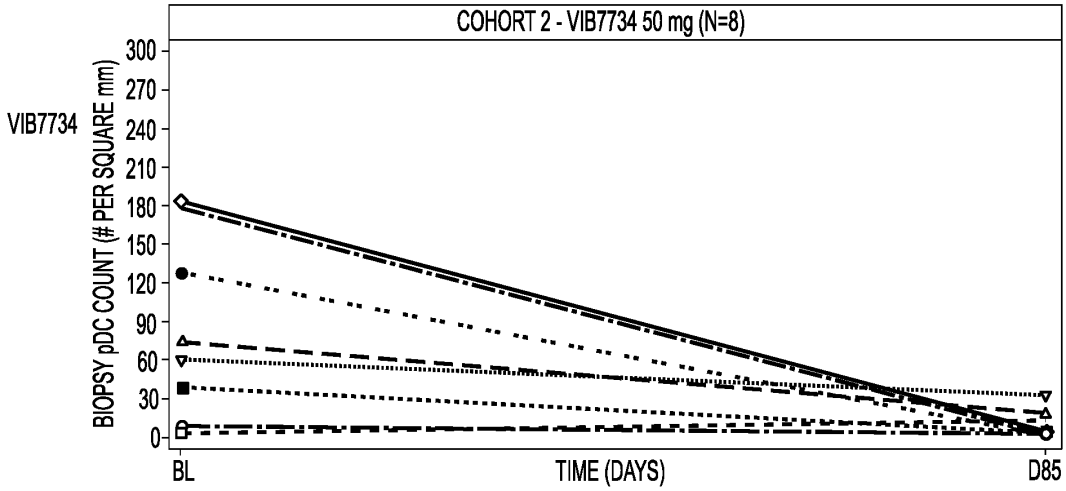
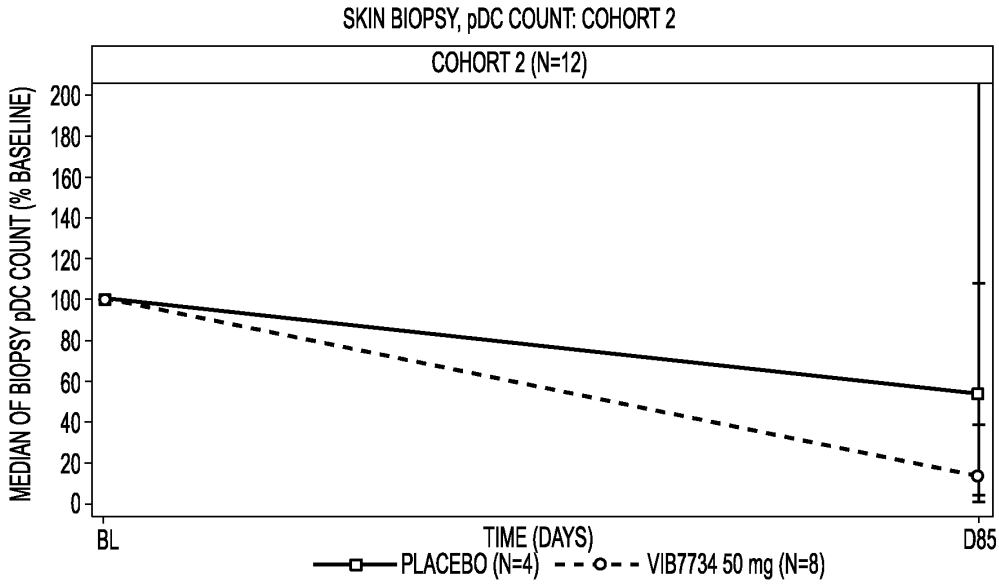


FIG. 34B



Median reduction in pDC count:
VIB7734: -87%
Placebo: -47%

FIG. 35A

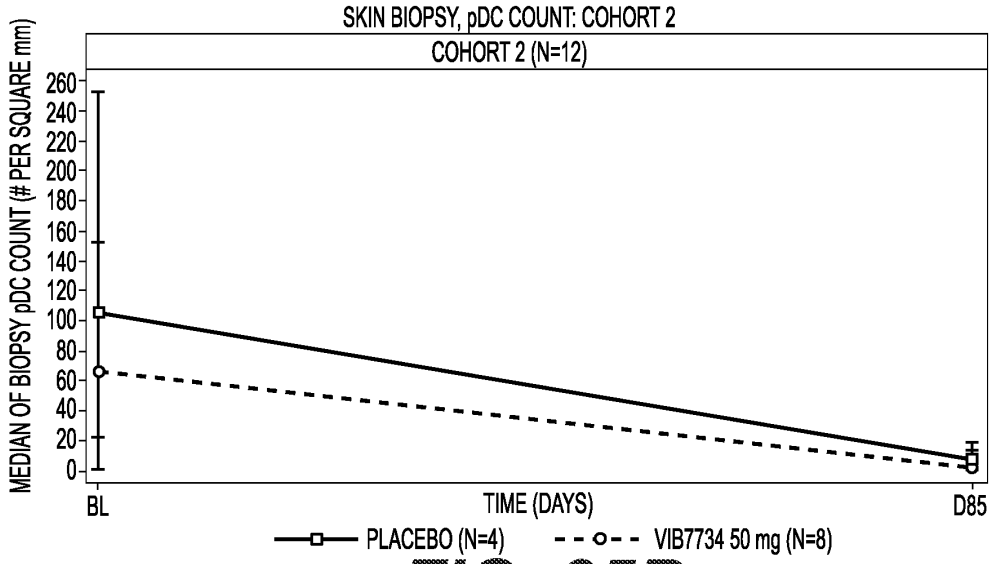


FIG. 35B

Median change from baseline in pDC count:
VIB7734: -87%
Placebo: -47%

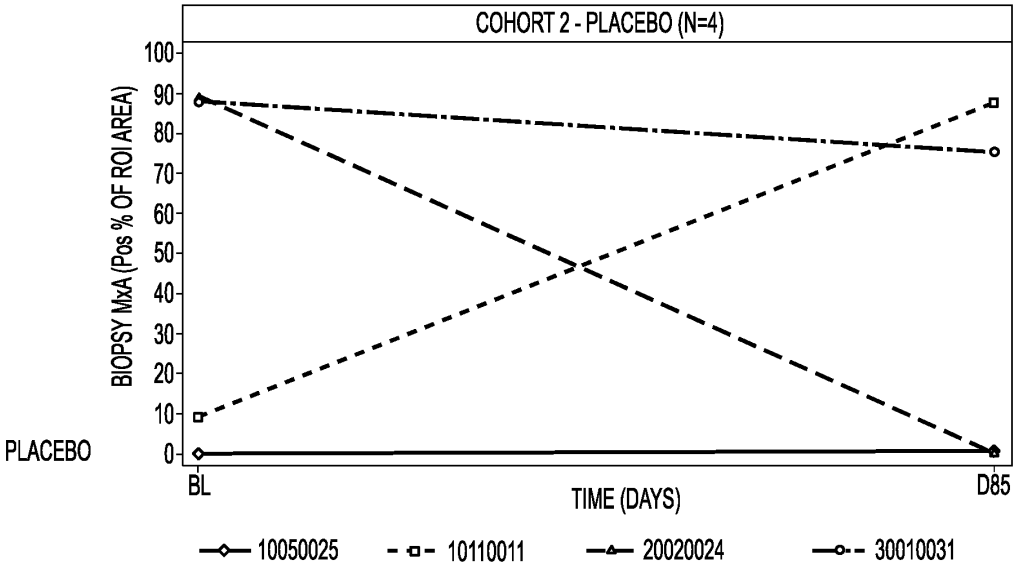


FIG. 36A

Cohort 2 Skin Biopsy, MxA subject level data

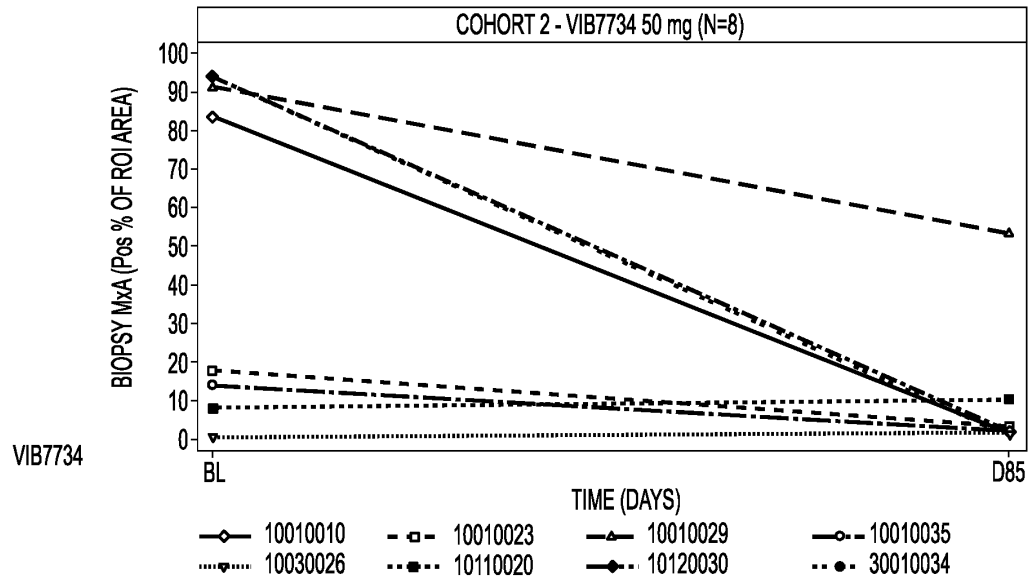
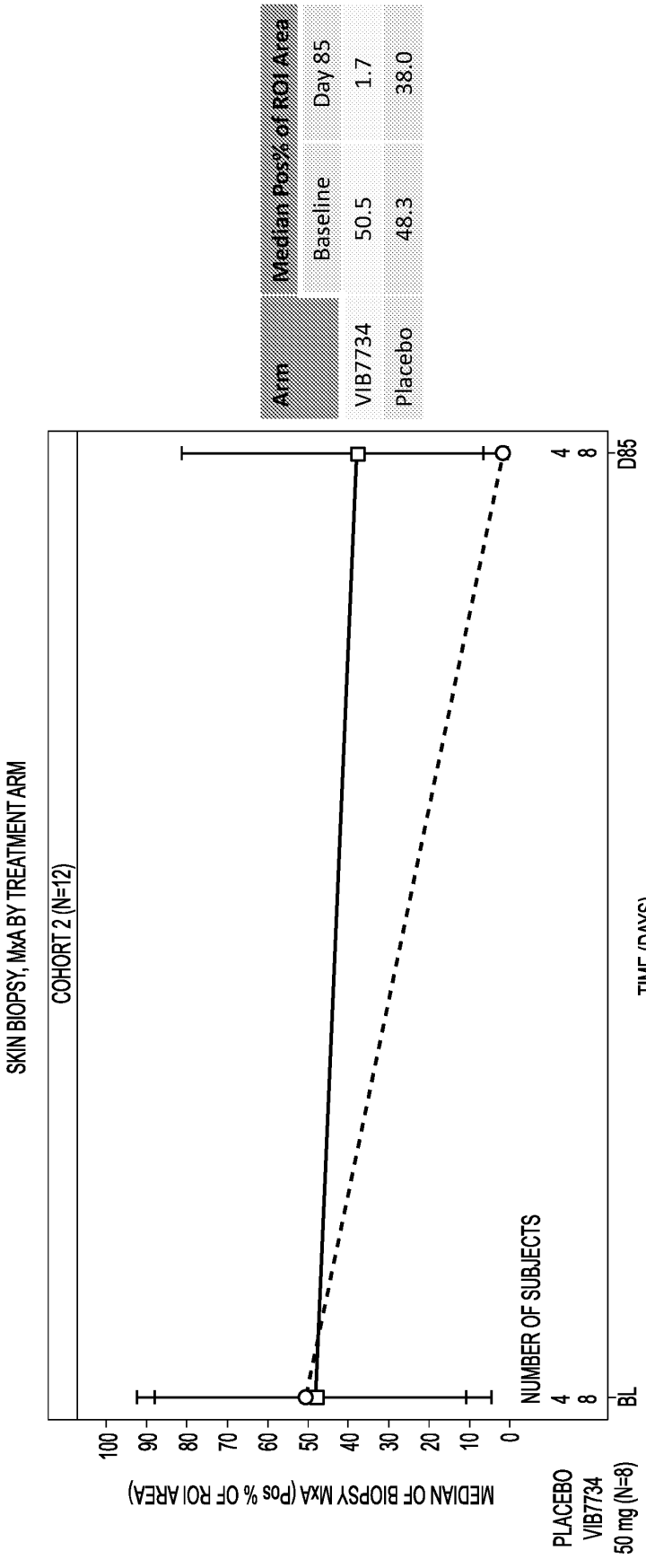


FIG. 36B

Cohort 2 Skin Biopsy, MxA subject level data



Arm	Median Pos% of ROI Area	
	Baseline	Day 85
VIB7734	50.5	1.7
Placebo	48.3	38.0

FIG. 37

FIG. 38A

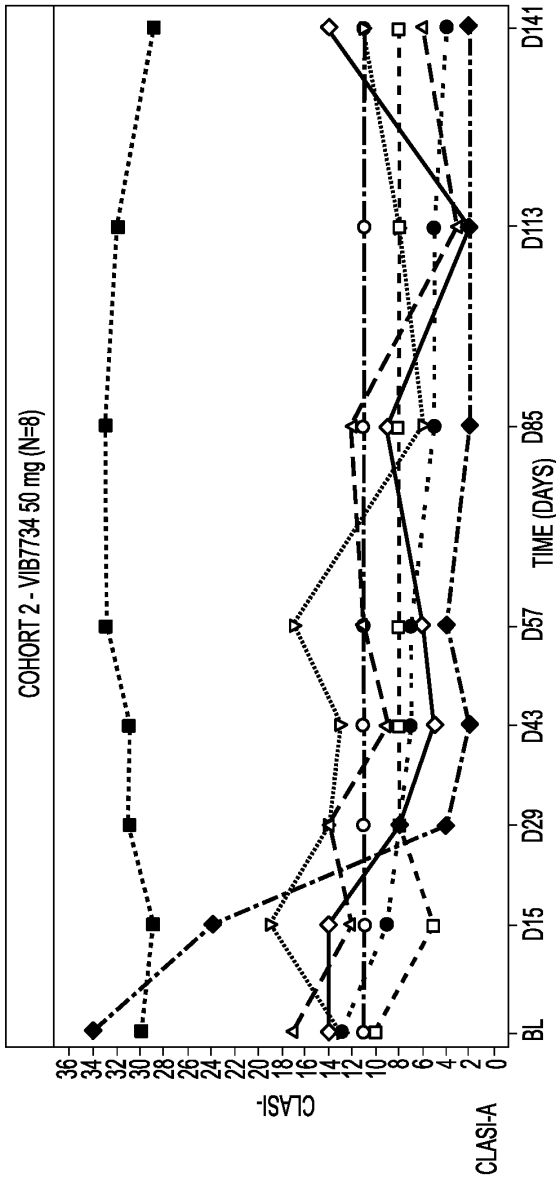
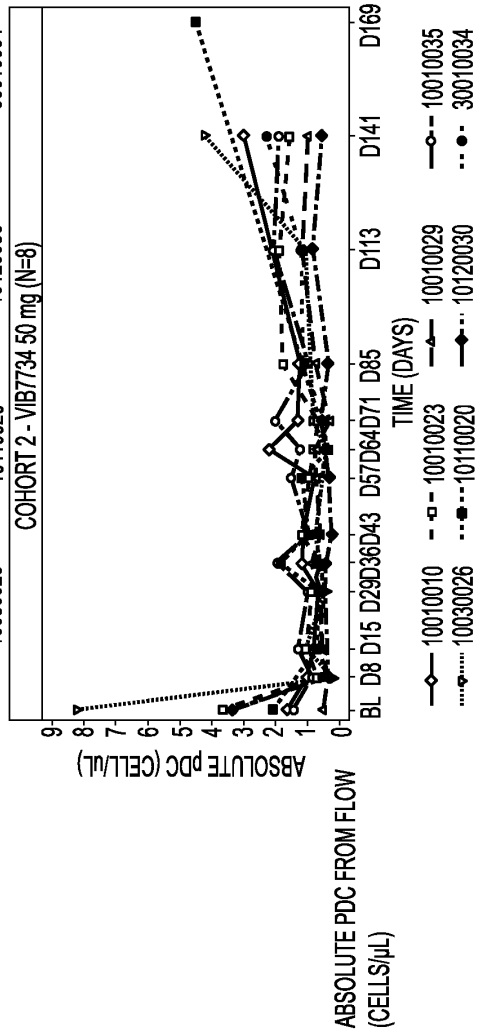


FIG. 38B



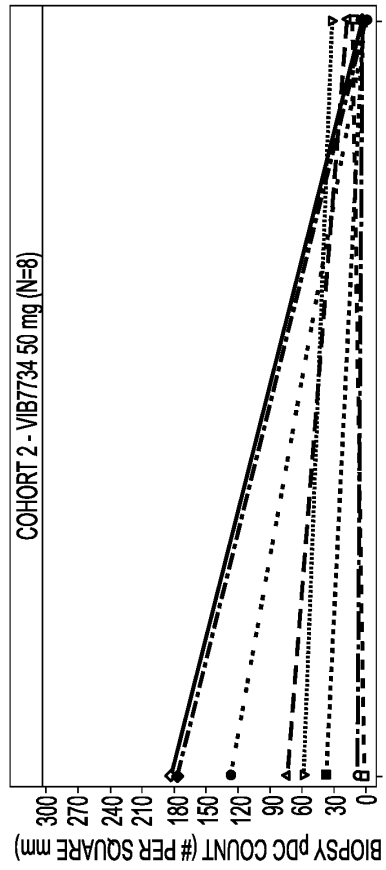


FIG. 38C

FIG. 38D

FIG. 38E

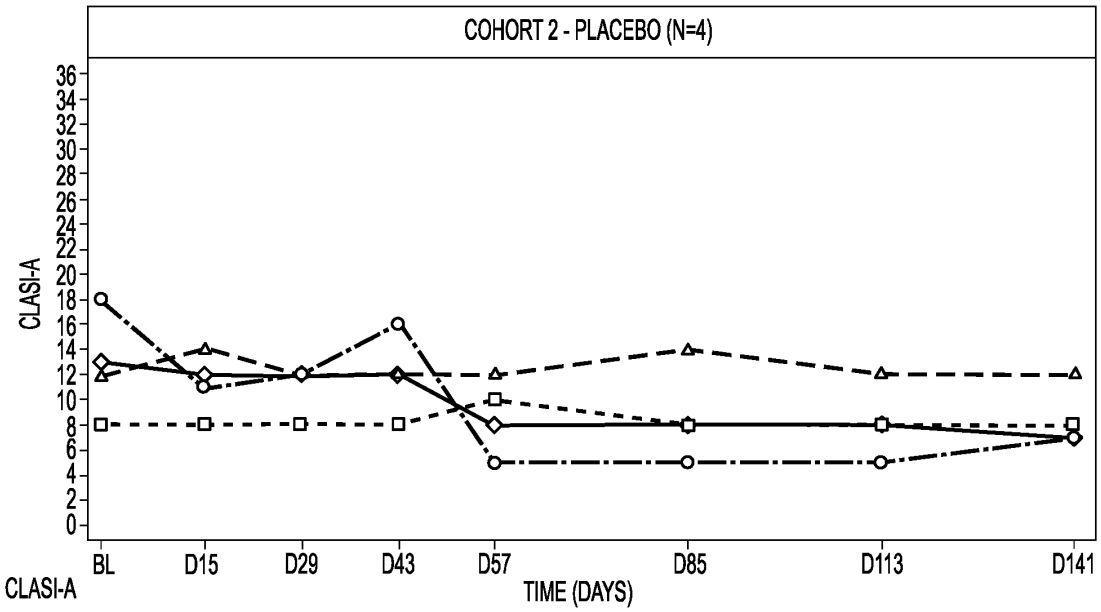


FIG. 39A

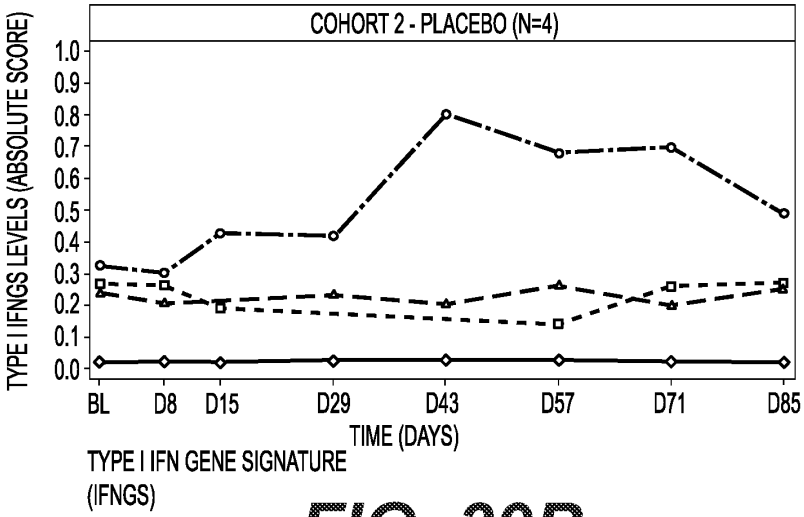


FIG. 39B

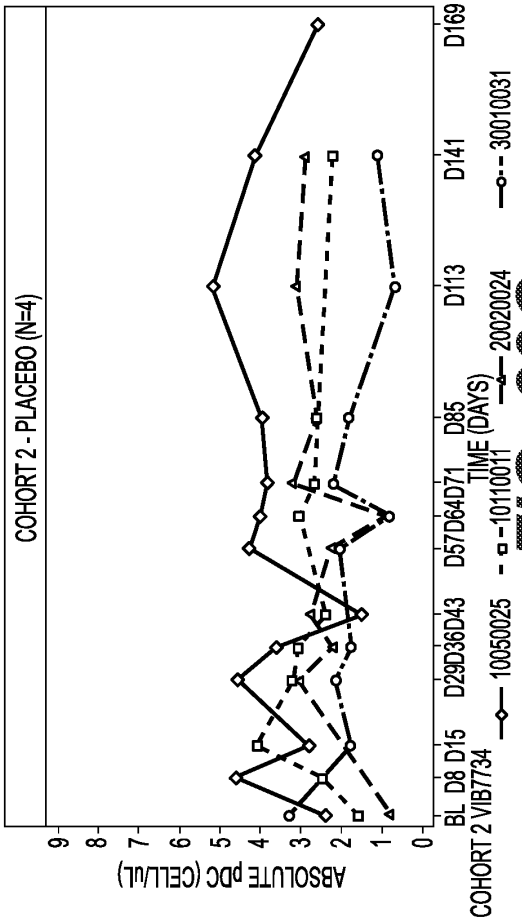


FIG. 39C

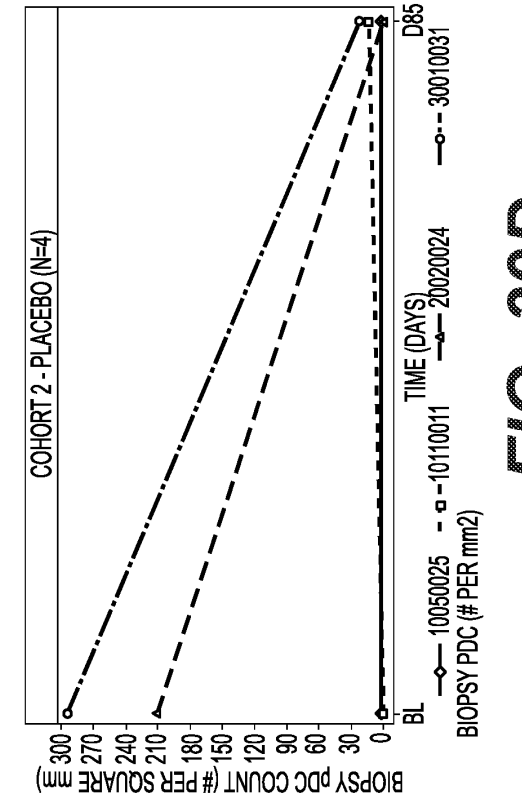


FIG. 39D

FIG. 39E

SUBSTITUTE SHEET (RULE 26)

Overall Summary of AE

Subjects [a] With	Cohort 1 5 mg		Cohort 2 50 mg		Cohort 3 150 mg		Cohort 2 and 3		All Cohorts		
	Placebo N = 2	VIB7734 N = 6	Placebo N = 4	VIB7734 N = 8	Placebo N = 3	VIB7734 N = 8	Placebo N = 7	VIB7734 N = 16	Placebo N = 9	VIB7734 N = 22	Total N = 31
At Least One Event	1 (50.0%)	4 (66.7%)	3 (75.0%)	6 (75.0%)	2 (66.7%)	6 (75.0%)	5 (71.4%)	12 (75.0%)	6 (66.7%)	16 (72.7%)	22 (71.0%)
At Least One Related Event	0	0	1 (25.0%)	1 (12.5%)	1 (33.3%)	3 (37.5%)	2 (28.6%)	4 (25.0%)	2 (22.2%)	4 (18.2%)	6 (19.4%)
At Least One Event of ≥ Grade 3 Severity [b]	0	0	1 (25.0%)	0	0	1 (12.5%)	1 (14.3%)	1 (6.3%)	1 (11.1%)	1 (4.5%)	2 (6.5%)
Death (Grade 5 Severity [b])	0	0	0	0	0	0	0	0	0	0	0
At Least One Serious [c] Event	0	0	1 (25.0%)	0	0	0	1 (14.3%)	0	1 (11.1%)	0	1 (3.2%)
At Least One Serious [c] and ≥ Grade 3 Severity [b] Event	0	0	1 (25.0%)	0	0	0	1 (14.3%)	0	1 (11.1%)	0	1 (3.2%)
At Least One Related Serious [c] Event	0	0	1 (25.0%)	0	0	0	1 (14.3%)	0	1 (11.1%)	0	1 (3.2%)
At Least One Event Leading to Discontinuation of Investigational Product	0	0	0	0	0	0	0	0	0	0	0

FIG. 40

SUBSTITUTE SHEET (RULE 26)

AE of Special Interest (AESI)

AE Special Interest System Organ Class [a] Preferred Term (MedDRA v22.0)	Cohort 1 5 mg		Cohort 2 50 mg		Cohort 3 150 mg		Cohort 2 and 3		All Cohorts		
	Placebo N = 2	VIB7734 N = 6	Placebo N = 4	VIB7734 N = 8	Placebo N = 3	VIB7734 N = 8	Placebo N = 7	VIB7734 N = 16	Placebo N = 9	VIB7734 N = 22	Total N = 31
Subjects With at Least One Event	0	1 (16.7%)	1 (25.0%)	1 (12.5%)	0	1 (12.5%)	1 (14.3%)	2 (12.5%)	1 (11.1%)	3 (13.6%)	4 (12.9%)
Grade 1	0	0	1 (25.0%)	1 (12.5%)	0	0	1 (14.3%)	1 (6.3%)	1 (11.1%)	1 (4.5%)	2 (6.5%)
Grade 2	0	1 (16.7%)	0	0	0	1 (12.5%)	0	1 (6.3%)	0	2 (9.1%)	2 (6.5%)
Viral Infection/Reactivation	0	1 (16.7%)	1 (25.0%)	1 (12.5%)	0	1 (12.5%)	1 (14.3%)	2 (12.5%)	1 (11.1%)	3 (13.6%)	4 (12.9%)
Grade 1	0	0	1 (25.0%)	1 (12.5%)	0	0	1 (14.3%)	1 (6.3%)	1 (11.1%)	1 (4.5%)	2 (6.5%)
Grade 2	0	1 (16.7%)	0	0	0	1 (12.5%)	0	1 (6.3%)	0	2 (9.1%)	2 (6.5%)
Infections and infestations	0	1 (16.7%)	1 (25.0%)	1 (12.5%)	0	1 (12.5%)	1 (14.3%)	2 (12.5%)	1 (11.1%)	3 (13.6%)	4 (12.9%)
Grade 1	0	0	1 (25.0%)	1 (12.5%)	0	0	1 (14.3%)	1 (6.3%)	1 (11.1%)	1 (4.5%)	2 (6.5%)
Grade 2	0	1 (16.7%)	0	0	0	1 (12.5%)	0	1 (6.3%)	0	2 (9.1%)	2 (6.5%)
Herpes simplex	0	0	0	0	0	1 (12.5%)	0	1 (6.3%)	0	1 (4.5%)	1 (3.2%)
Grade 2	0	0	0	0	0	1 (12.5%)	0	1 (6.3%)	0	1 (4.5%)	1 (3.2%)
Influenza	0	1 (16.7%)	0	0	0	0	0	0	0	1 (4.5%)	1 (3.2%)
Grade 2	0	1 (16.7%)	0	0	0	0	0	0	0	1 (4.5%)	1 (3.2%)
Ophthalmic herpes zoster	0	0	1 (25.0%)	0	0	0	1 (14.3%)	0	1 (11.1%)	0	1 (3.2%)
Grade 1	0	0	1 (25.0%)	0	0	0	1 (14.3%)	0	1 (11.1%)	0	1 (3.2%)
Sinusitis	0	1 (16.7%)	0	0	0	0	0	0	0	1 (4.5%)	1 (3.2%)
Grade 2	0	1 (16.7%)	0	0	0	0	0	0	0	1 (4.5%)	1 (3.2%)
Upper respiratory tract infection	0	0	0	1 (12.5%)	0	0	0	1 (6.3%)	0	1 (4.5%)	1 (3.2%)
Grade 1	0	0	0	1 (12.5%)	0	0	0	1 (6.3%)	0	1 (4.5%)	1 (3.2%)

FIG. 41

Overview: Biopsy IHC analysis (Cohort 2 and Cohort 3)

- Cohort 2 = 12 subjects (n=4 placebo; n=8 VIB7734)
- Cohort 3 = 11 subjects total; biopsies from n=10 subjects available for analysis*
  - n=2 placebo
  - n=8 VIB7734, 150 mg
- Two 4mm punch biopsies collected per subject
  - Visit 2 (baseline)
  - Visit 11 (day 85)
- Biopsies were sectioned longitudinally
- Each stain panel was analyzed on three sections per biopsy (left, center, right)
- C
- T
- Three rounds of staining performed to assess:
  - pDCs (BDCA2/ILT7)
  - IFN activity (MxA)
  - Inflammatory infiltrate (CD45)

FIG. 42

Analysis Strategy: quantification of pDCs and CD45+ cells (Cohort 2 and Cohort 3)

- Analysis region for pDCs and CD45+ cells: 500 microns of dermis proximal to the DEJ (red outline, top image)
- Any protrusions of epidermis were excluded from analysis region (example; top image)
- **Readout**: number of cells per mm^2
- Consistent RGB values used to identify positive cells (except where background staining impacted detection with those settings, very few instances)
- Example of positive cell detection algorithm shown (bottom, right). Red indicates a positive cell; blue indicates negative.

A.

Analysis region: outlined in red

Example without (left) and with (right) cell detection algorithm

B. **C.**

FIG. 43

Analysis Strategy: quantification of MxA (IFN activity) (Cohort 2 and Cohort 3)
Analysis region: outlined in red
A.
Example without (left) and with (right) positive detection algorithn
B.
C.
MxA
• Analysis region for MxA: entire length of epidermis (red outline, top image)
• Readout: percent of area positive for MxA (% ROI MxA+)
• Consistent RGB values used to identify positive pixels
• Example of positive pixel detection shown (bottom, right). Red indicates positive pixels; blue indicates negative.

FIG. 44

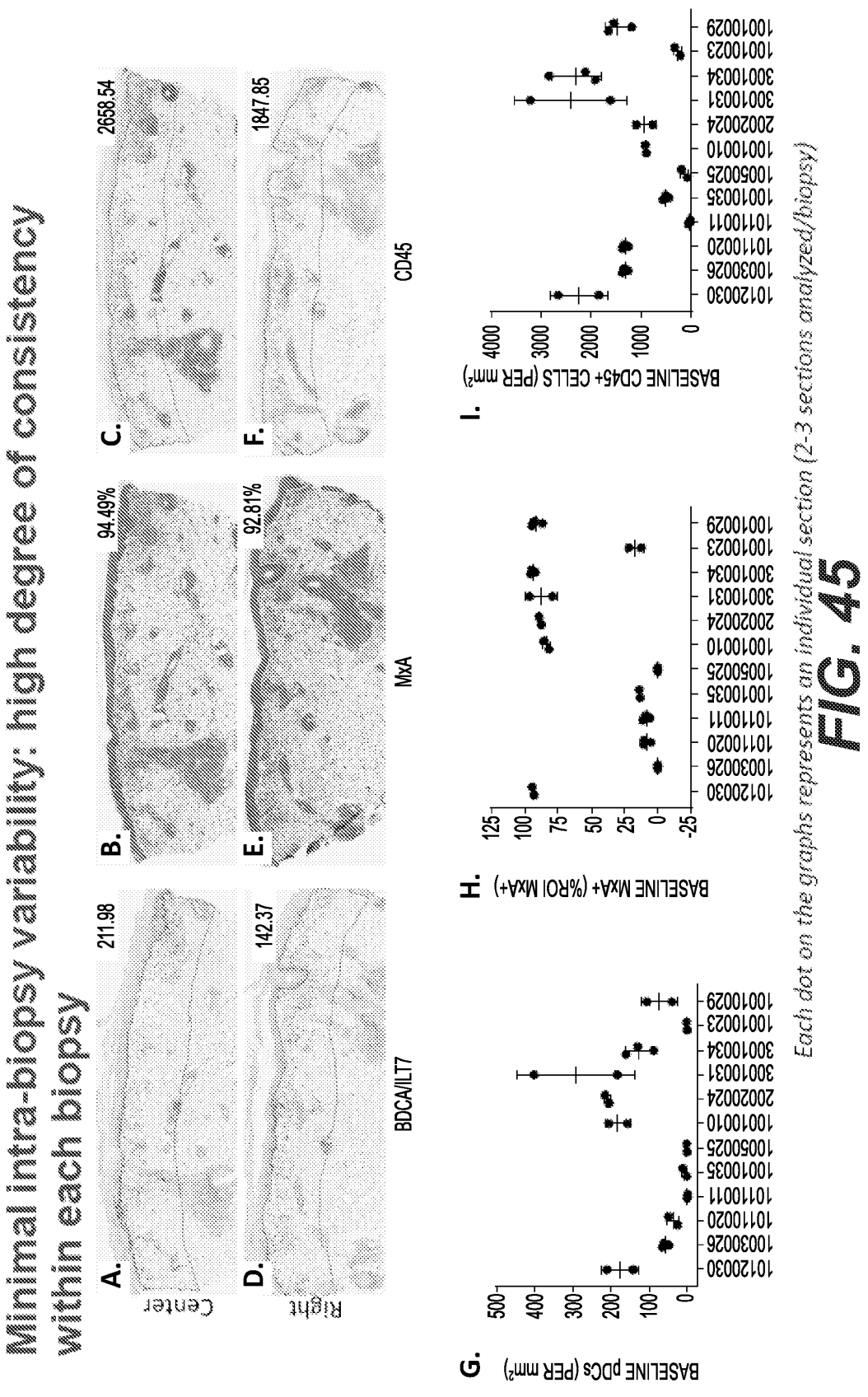

Minimal intra-biopsy variability: high degree of consistency within each biopsy
A.
211.98
B.
94.49%
C.
2658.54
D.
142.37
E.
92.81%
F.
1847.85
Center
Right
BDCA/LT7
MxA
CD45
G.
BASELINE pDCs (PER mm²)
H.
BASELINE MxA+ (%ROI MxA+)
I.
BASELINE CD45+ CELLS (PER mm²)
Each dot on the graphs represents an individual section (2-3 sections analyzed/biopsy)

FIG. 45

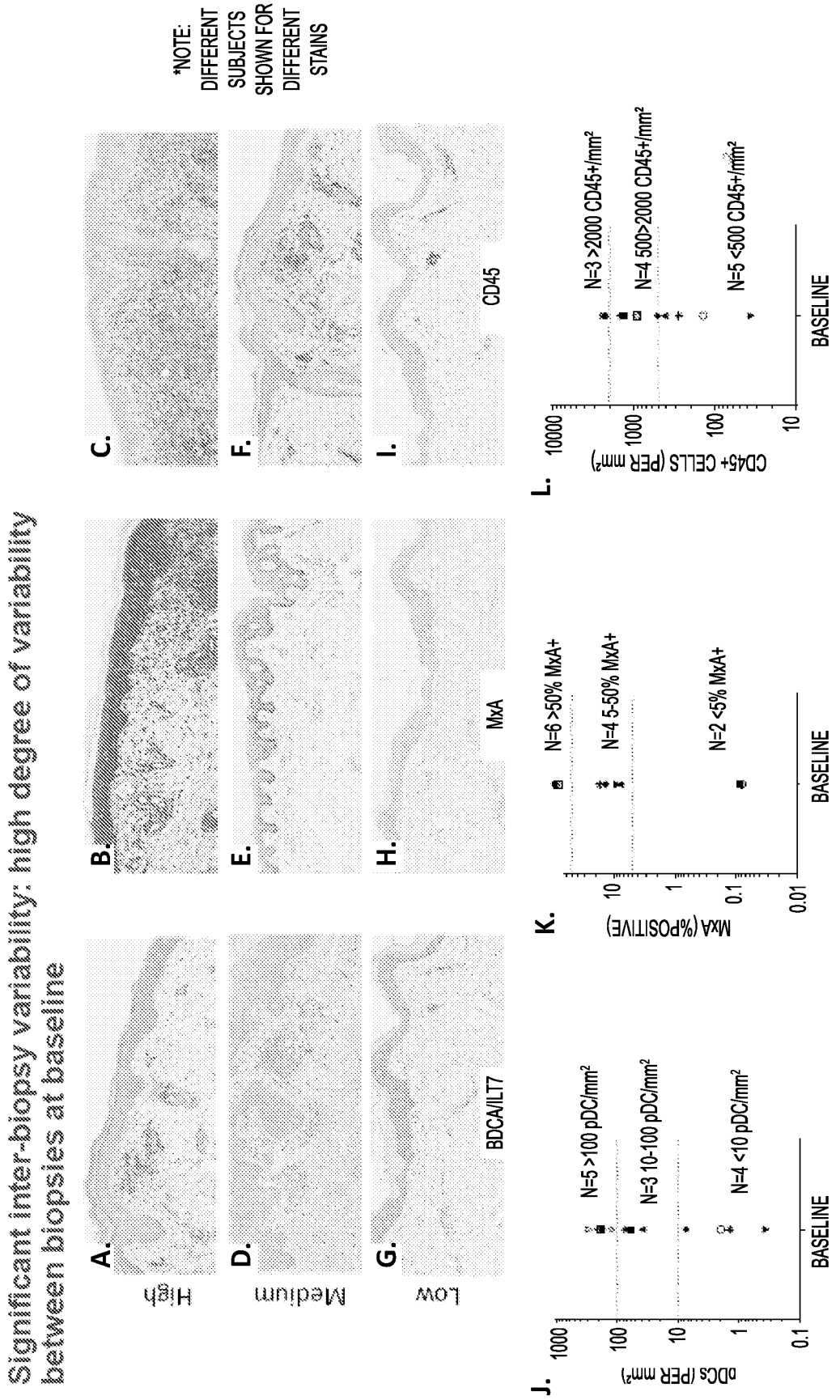

Significant inter-biopsy variability: high degree of variability between biopsies at baseline
*NOTE: DIFFERENT SUBJECTS SHOWN FOR DIFFERENT STAINS
A.
B.
C.
D.
E.
F.
G.
H.
I.
High
Medium
Low
BDCA/ILT7
MxA
CD45
J.
pDCs (PER mm²)
N=5 >100 pDC/mm²
N=3 10-100 pDC/mm²
N=4 <10 pDC/mm²
BASELINE
K.
MxA (%POSITIVE)
N=6 >50% MxA+
N=4 5-50% MxA+
N=2 <5% MxA+
BASELINE
L.
CD45+ CELLS (PER mm²)
N=3 >2000 CD45+/mm²
N=4 500>2000 CD45+/mm²
N=5 <500 CD45+/mm²
BASELINE

FIG. 46

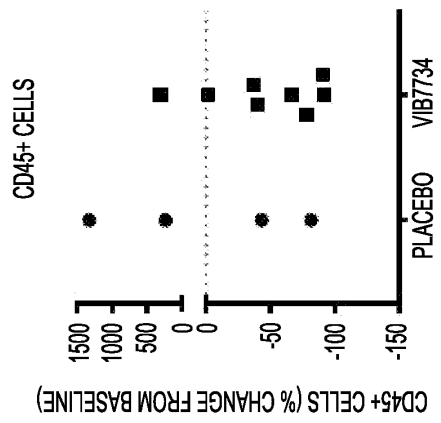


FIG. 47C

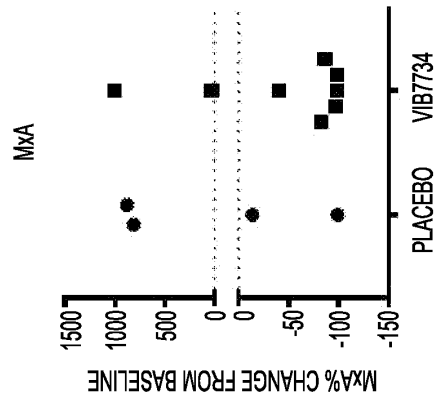


FIG. 47B

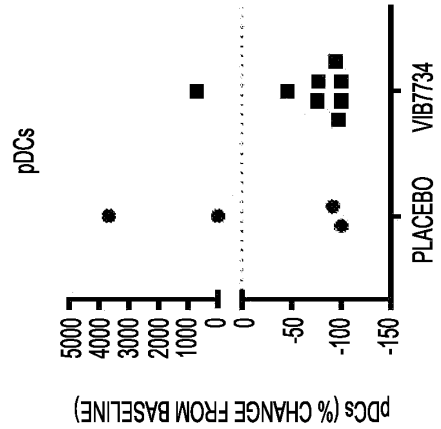


FIG. 47A

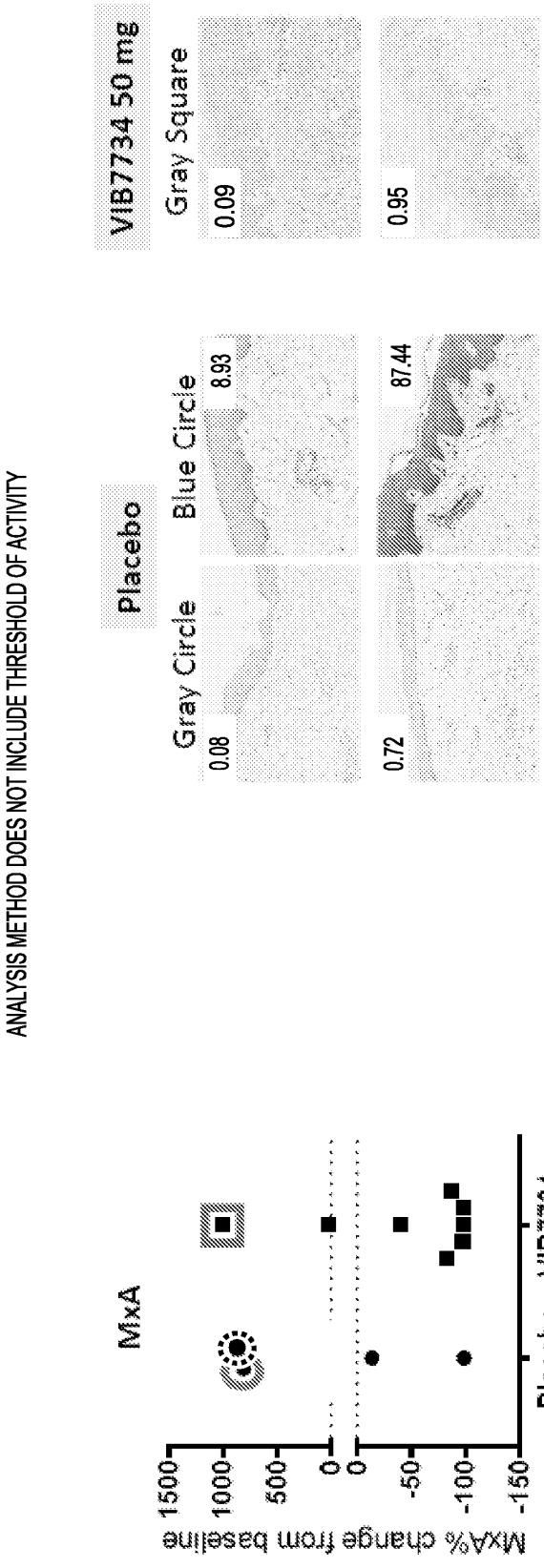


FIG. 48A

FIG. 48B

FIG. 48C

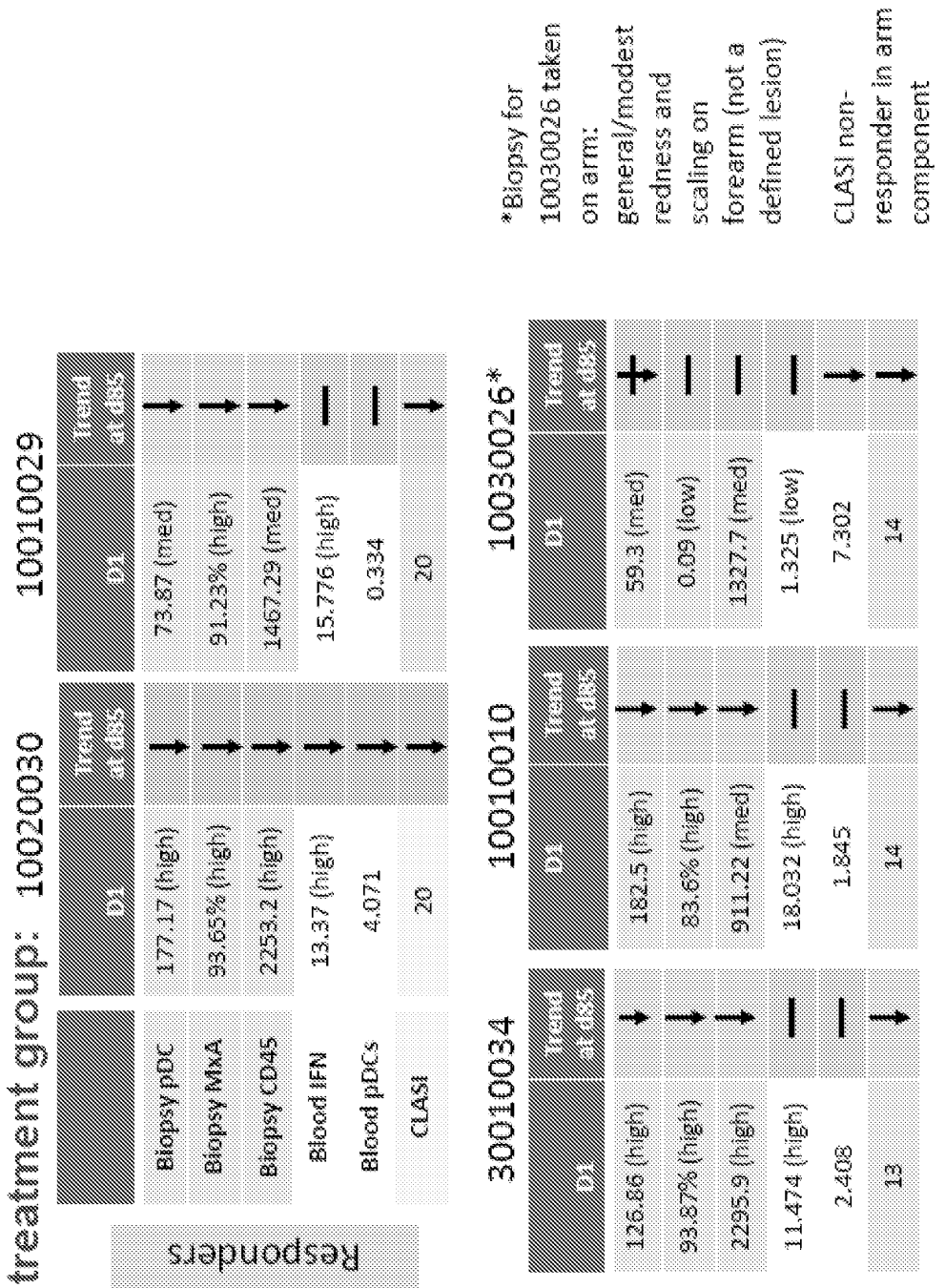

VIB7734 treatment group: 10020030 10010029
Responders
D1
Trend d1 d85
Biopsy pDC
177.17 (high)
73.87 (med)
Biopsy MxA
33.65% (high)
91.23% (high)
Biopsy CD45
2253.2 (high)
1467.29 (med)
Blood IFN
13.37 (high)
15.776 (high)
Blood pDCs
4.071
0.334
CLASI
20
20
30010034
10010010
10030026*
126.86 (high)
182.5 (high)
59.3 (med)
93.87% (high)
83.6% (high)
0.09 (low)
2295.9 (high)
911.22 (med)
1327.7 (med)
11.474 (high)
18.032 (high)
1.325 (low)
2.408
1.845
7.302
13
14
14
*Biopsy for 10030026 taken on arm: general/modest redness and scaling on forearm (not a defined lesion)
CLASI non-responder in arm component

FIG. 49

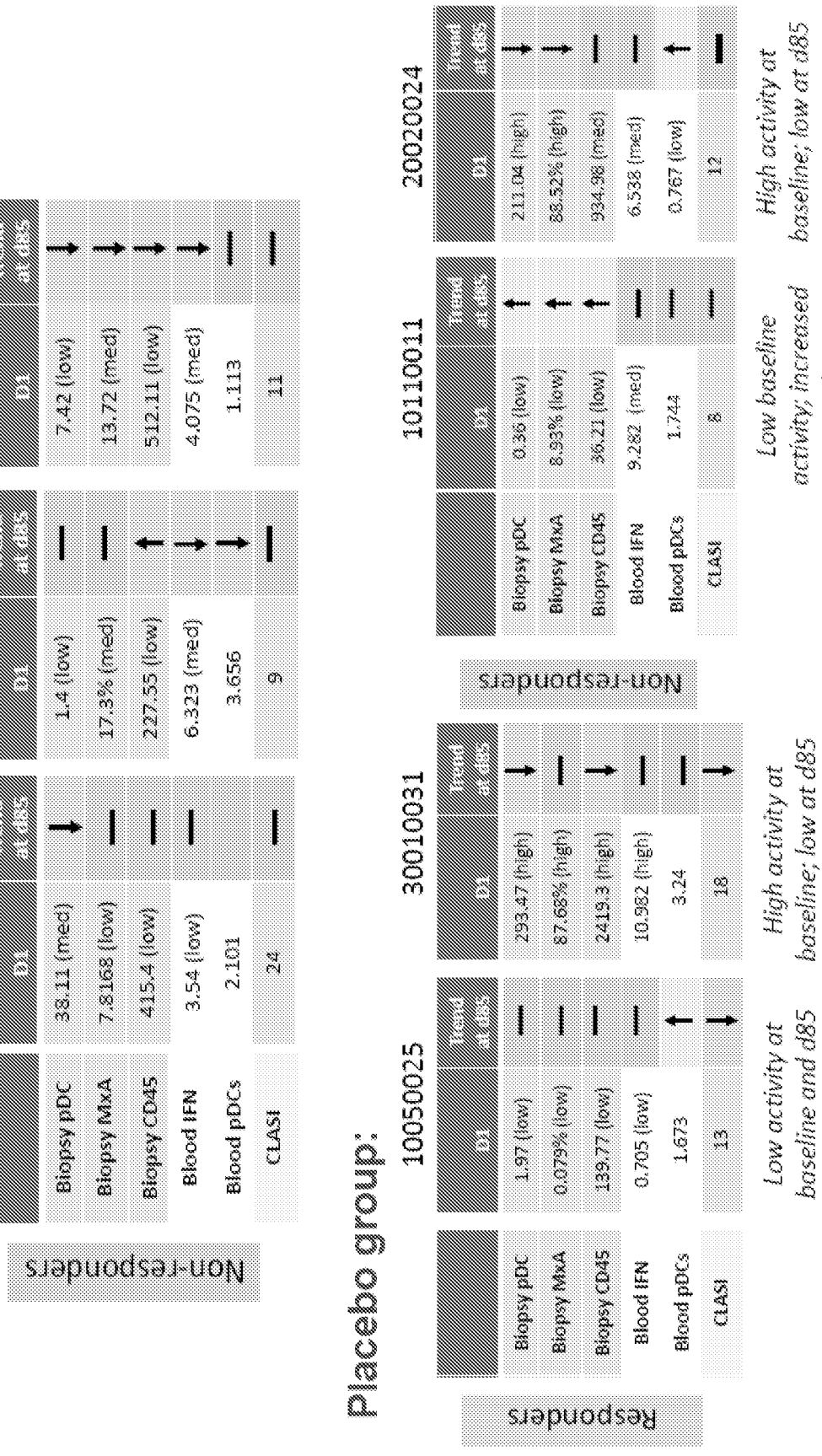

Placebo group:
Responders
Biopsy pDC
Biopsy MxA
Biopsy CD45
Blood IFN
Blood pDCs
CLASI
D1
Trend at d85
10050025
1.97 (low)
0.079% (low)
139.77 (low)
0.705 (low)
1.673
13
30010031
293.47 (high)
87.68% (high)
2419.3 (high)
10.982 (high)
3.24
18
Low activity at baseline and d85
High activity at baseline; low at d85
Non-responders
10110020
38.11 (med)
7.8168 (low)
415.4 (low)
3.54 (low)
2.101
24
10010023
1.4 (low)
17.3% (med)
227.55 (low)
6.323 (med)
3.656
9
10010035
7.42 (low)
13.72 (med)
512.11 (low)
4.075 (med)
1.113
11
10110011
0.36 (low)
8.33% (low)
36.21 (low)
9.282 (med)
1.744
8
20020024
211.04 (high)
83.52% (high)
934.98 (med)
6.538 (med)
0.767 (low)
12
Low baseline activity, increased at d85
High activity at baseline; low at d85

FIG. 49 CONT.

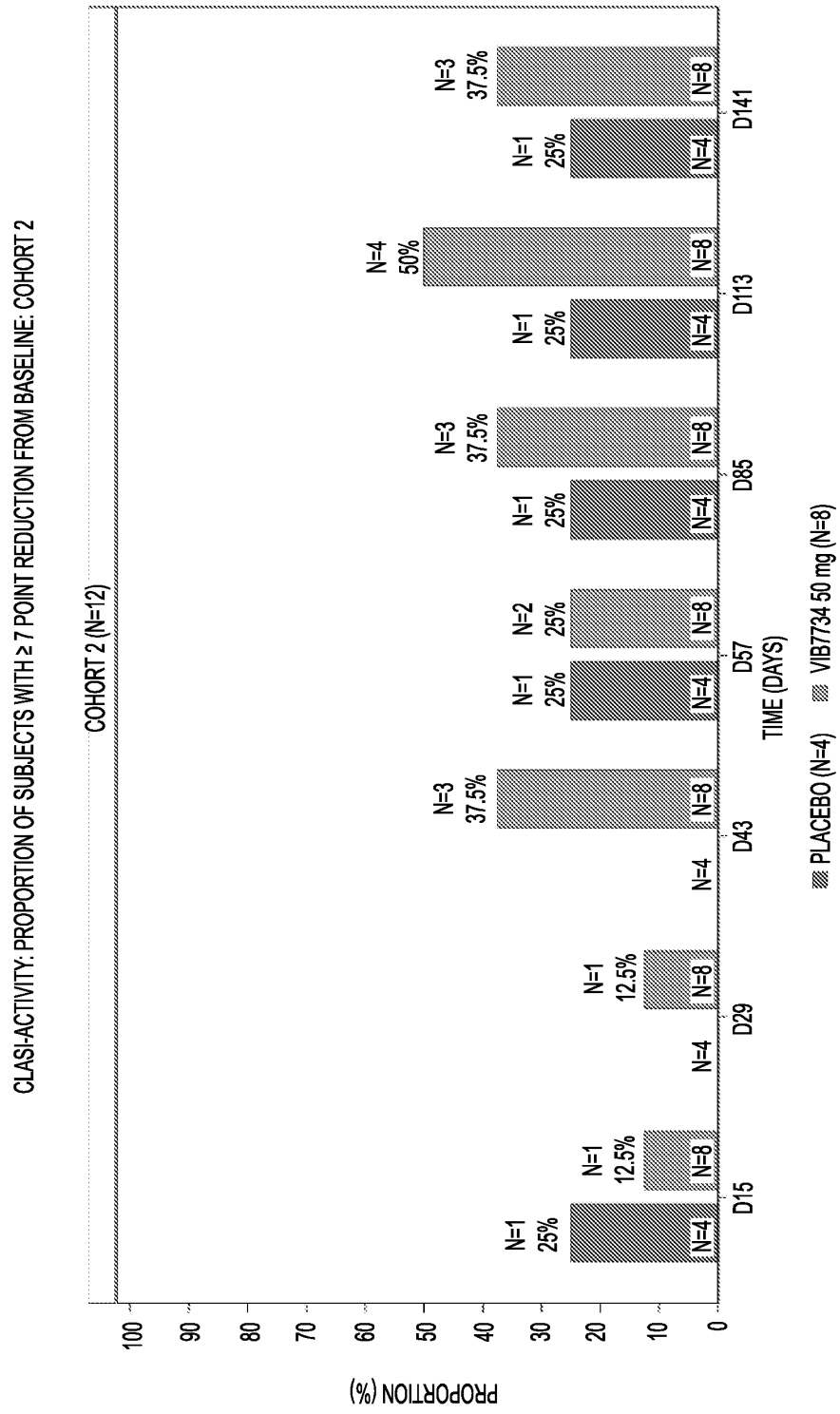

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 7 POINT REDUCTION FROM BASELINE: COHORT 2
COHORT 2 (N=12)
PROPORTION (%)
100
90
80
70
60
50
40
30
20
10
0
N=1
25%
N=4
N=1
12.5%
N=8
N=4
N=1
12.5%
N=8
N=4
N=3
37.5%
N=8
N=1
25%
N=4
N=2
25%
N=8
N=1
25%
N=4
N=3
37.5%
N=8
N=4
50%
N=8
N=1
25%
N=4
N=3
37.5%
N=8
D15
D29
D43
D57
D85
D113
D141
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50 mg (N=8)

FIG. 50

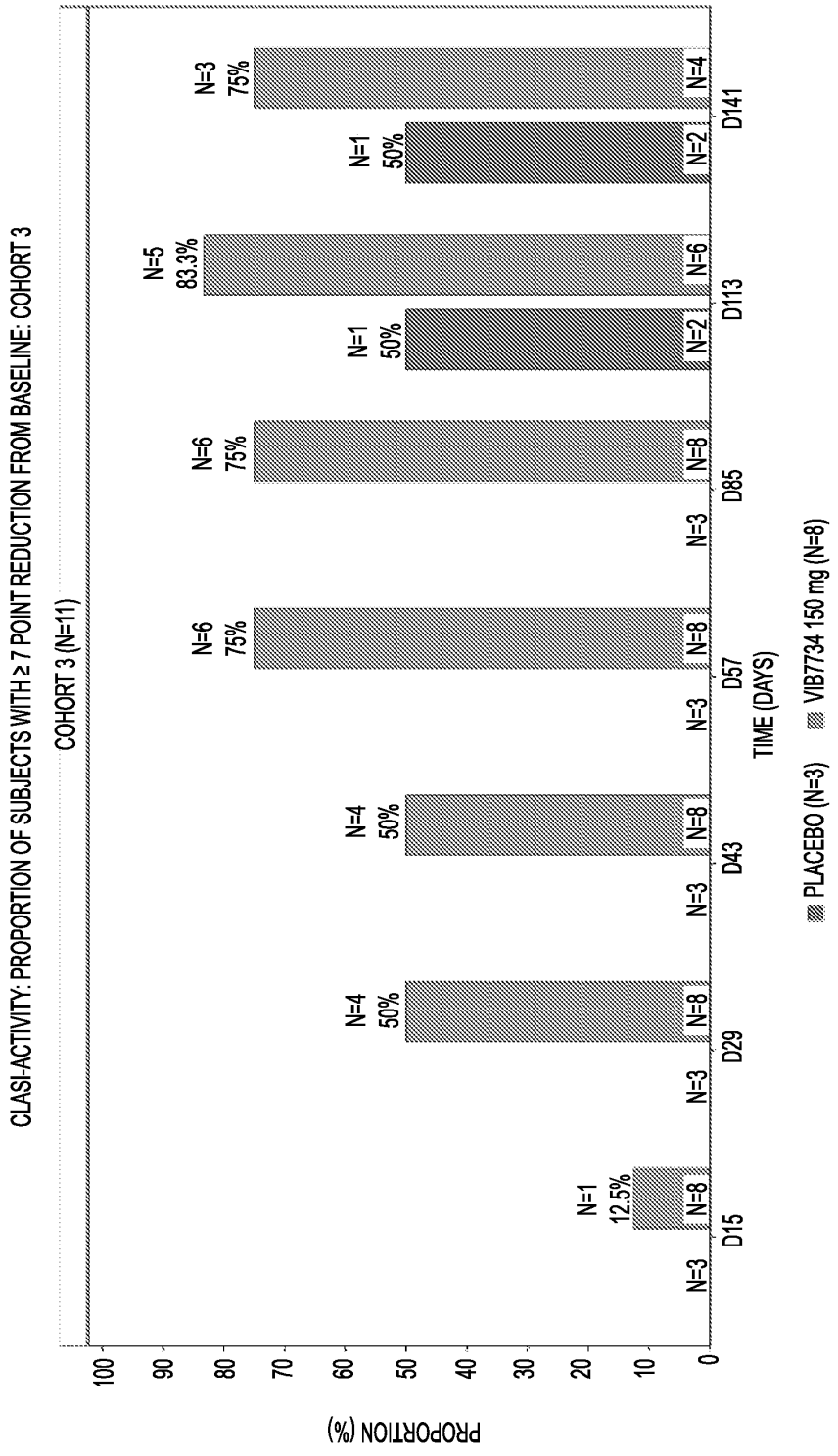

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 7 POINT REDUCTION FROM BASELINE: COHORT 3
COHORT 3 (N=11)
PROPORTION (%)
TIME (DAYS)
PLACEBO (N=3)
VIB7734 150 mg (N=8)
N=1 12.5%
N=4 50%
N=4 50%
N=6 75%
N=6 75%
N=1 50%
N=5 83.3%
N=1 50%
N=3 75%
D15
D29
D43
D57
D85
D113
D141

FIG. 51

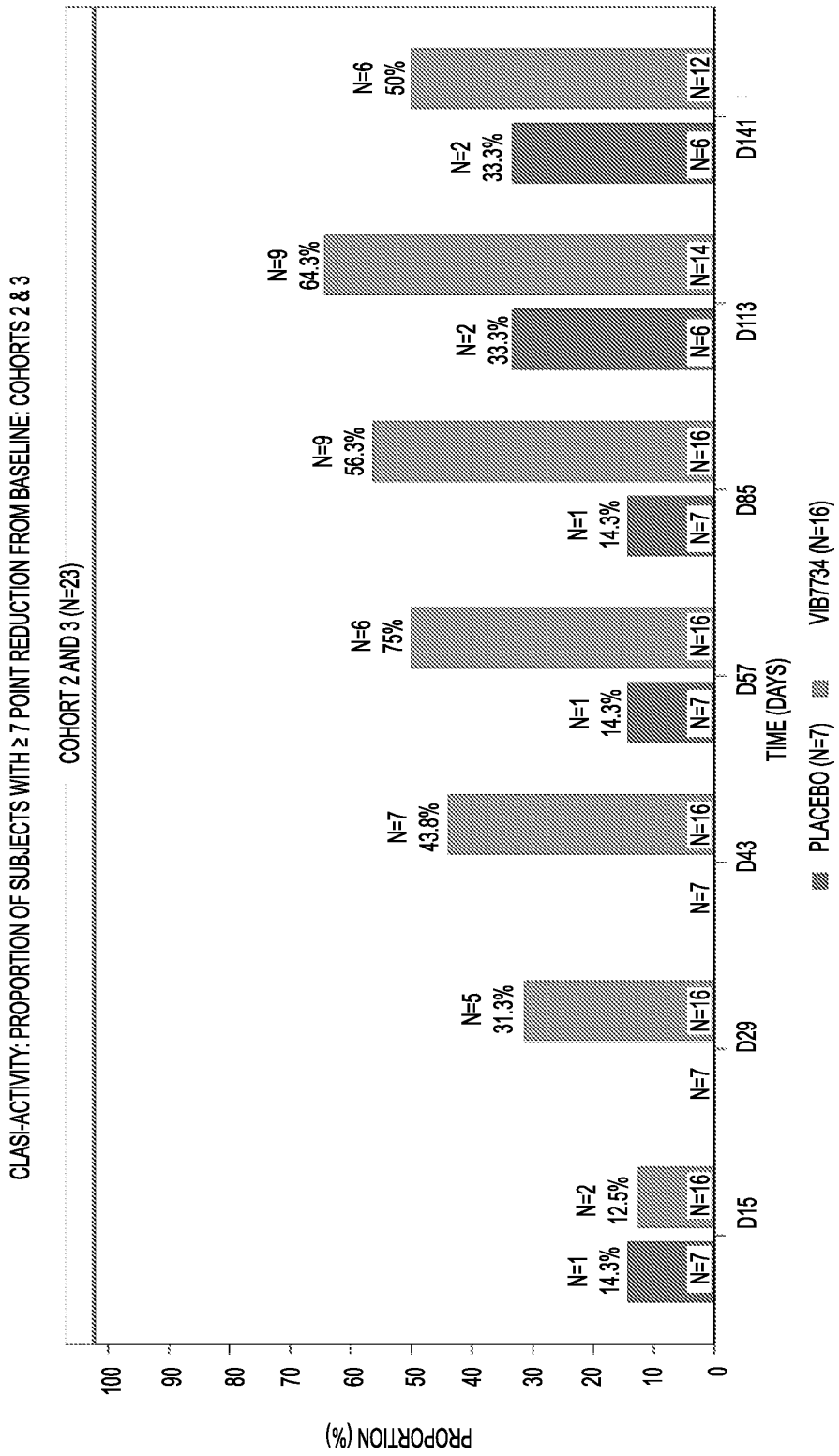

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 7 POINT REDUCTION FROM BASELINE: COHORTS 2 & 3
COHORT 2 AND 3 (N=23)
PROPORTION (%)
100
90
80
70
60
50
40
30
20
10
0
N=1 14.3% N=7
N=2 12.5% N=16
N=7
N=5 31.3% N=16
N=7
N=7 43.8% N=16
N=1 14.3% N=7
N=6 75% N=16
N=1 14.3% N=7
N=9 56.3% N=16
N=2 33.3% N=6
N=9 64.3% N=14
N=2 33.3% N=6
N=6 50% N=12
D15
D29
D43
D57
D85
D113
D141
TIME (DAYS)
PLACEBO (N=7)
VIB7734 (N=16)

FIG. 52

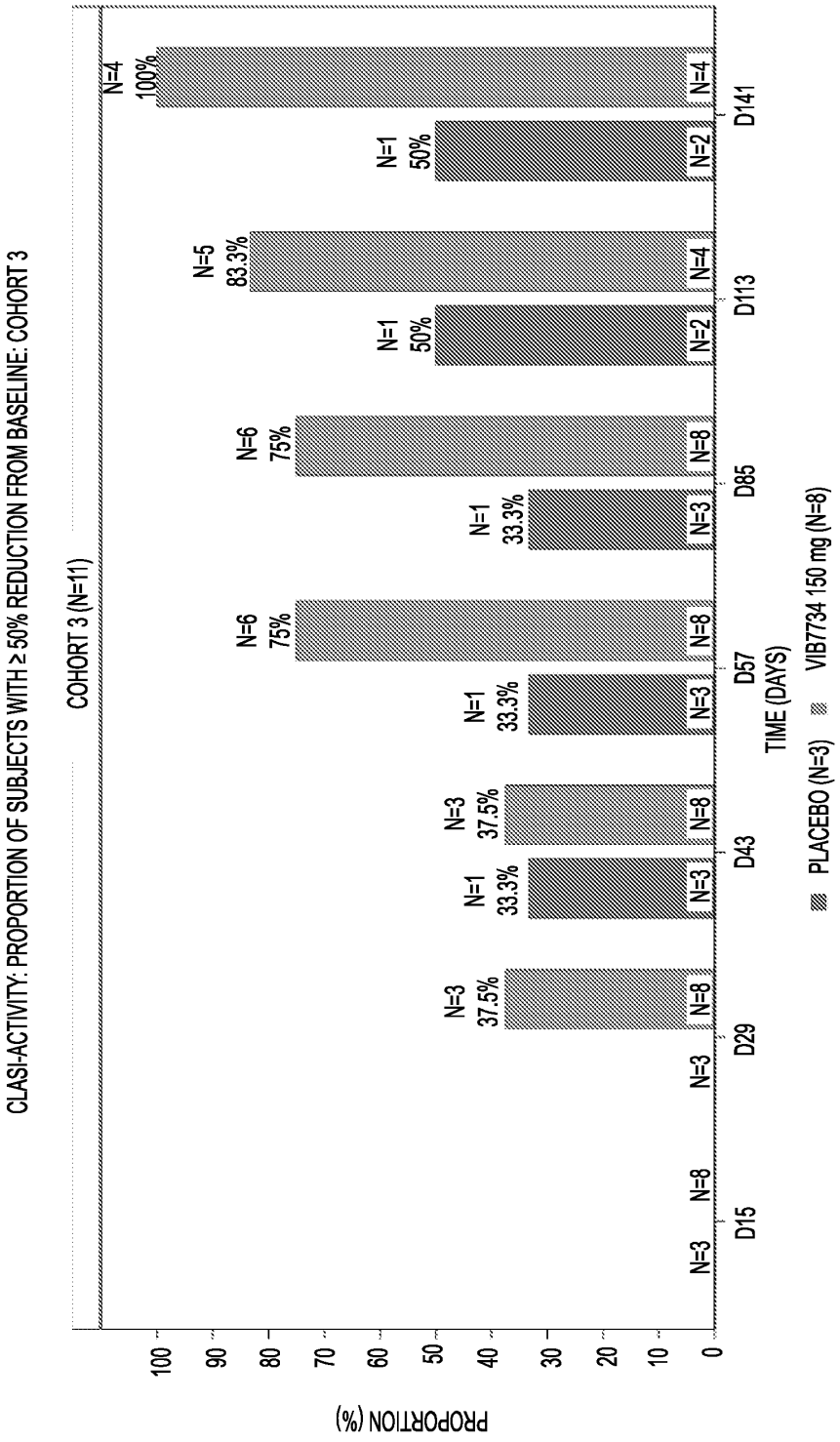

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 50% REDUCTION FROM BASELINE: COHORT 3
COHORT 3 (N=11)
PROPORTION (%)
TIME (DAYS)
PLACEBO (N=3)
VIB7734 150 mg (N=8)
D15
D29
D43
D57
D85
D113
D141
N=3
N=8
N=3
37.5%
N=1
33.3%
N=3
37.5%
N=1
33.3%
N=6
75%
N=1
33.3%
N=6
75%
N=1
50%
N=5
83.3%
N=1
50%
N=4
100%

FIG. 53

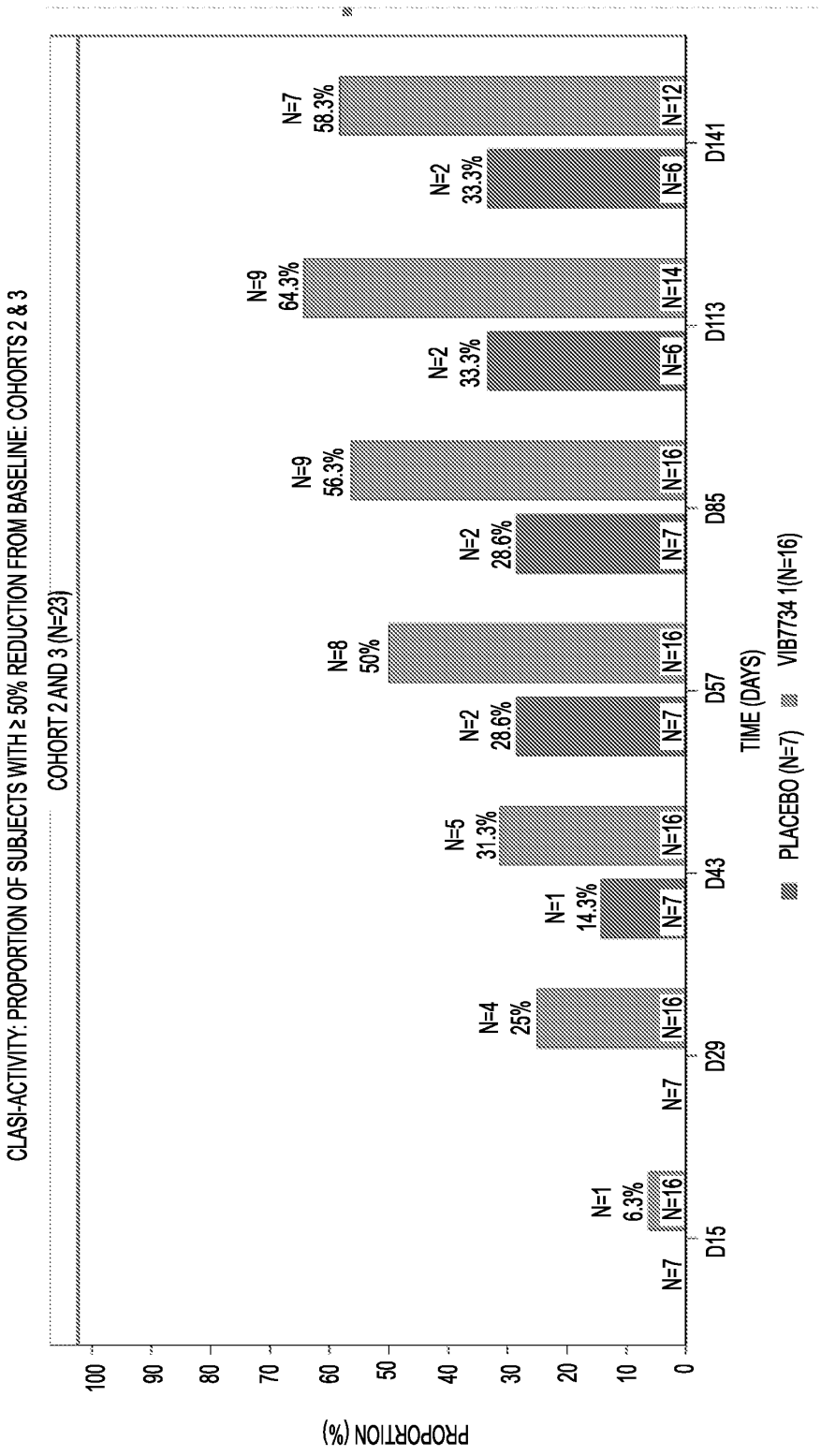

CLASI-ACTIVITY: PROPORTION OF SUBJECTS WITH ≥ 50% REDUCTION FROM BASELINE: COHORTS 2 & 3
COHORT 2 AND 3 (N=23)
PROPORTION (%)
100
90
80
70
60
50
40
30
20
10
0
N=7
N=1
6.3%
N=16
N=7
N=4
25%
N=16
N=1
14.3%
N=7
N=5
31.3%
N=16
N=2
28.6%
N=7
N=8
50%
N=16
N=2
28.6%
N=7
N=9
56.3%
N=16
N=2
33.3%
N=6
N=9
64.3%
N=14
N=2
33.3%
N=6
N=7
58.3%
N=12
D15
D29
D43
D57
D85
D113
D141
TIME (DAYS)
PLACEBO (N=7)
VIB7734 1(N=16)

FIG. 54

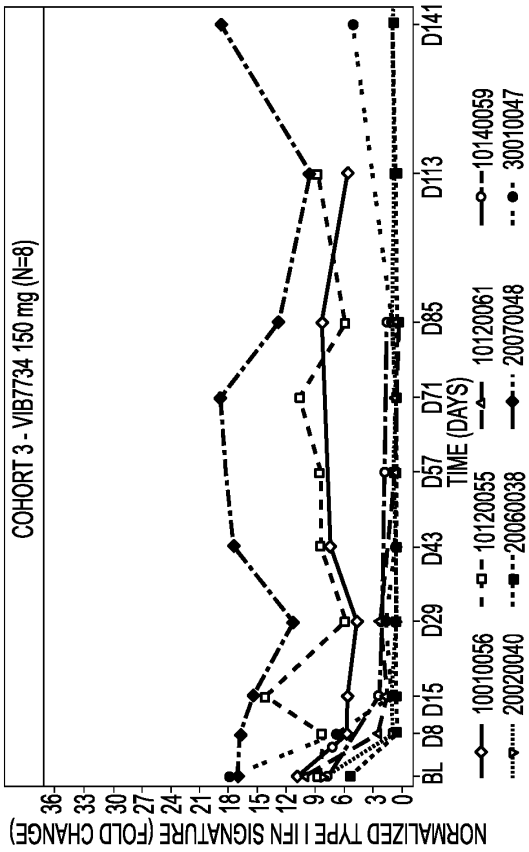


FIG. 55A

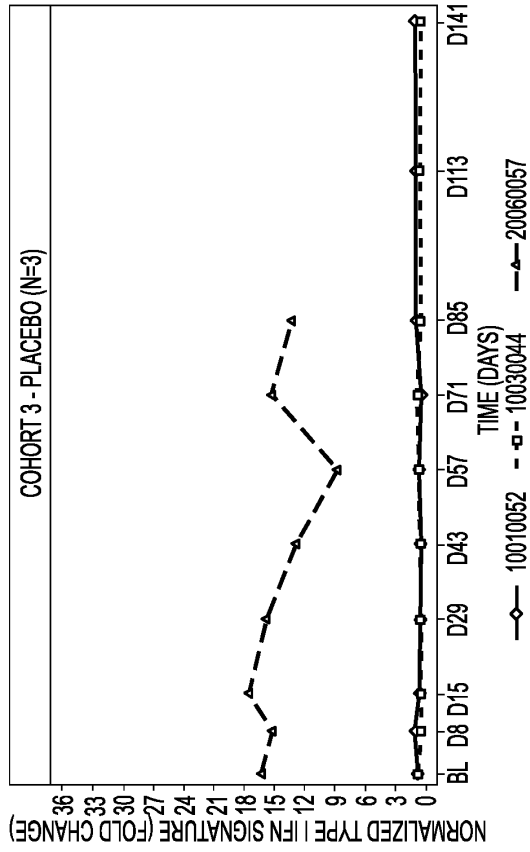


FIG. 55B

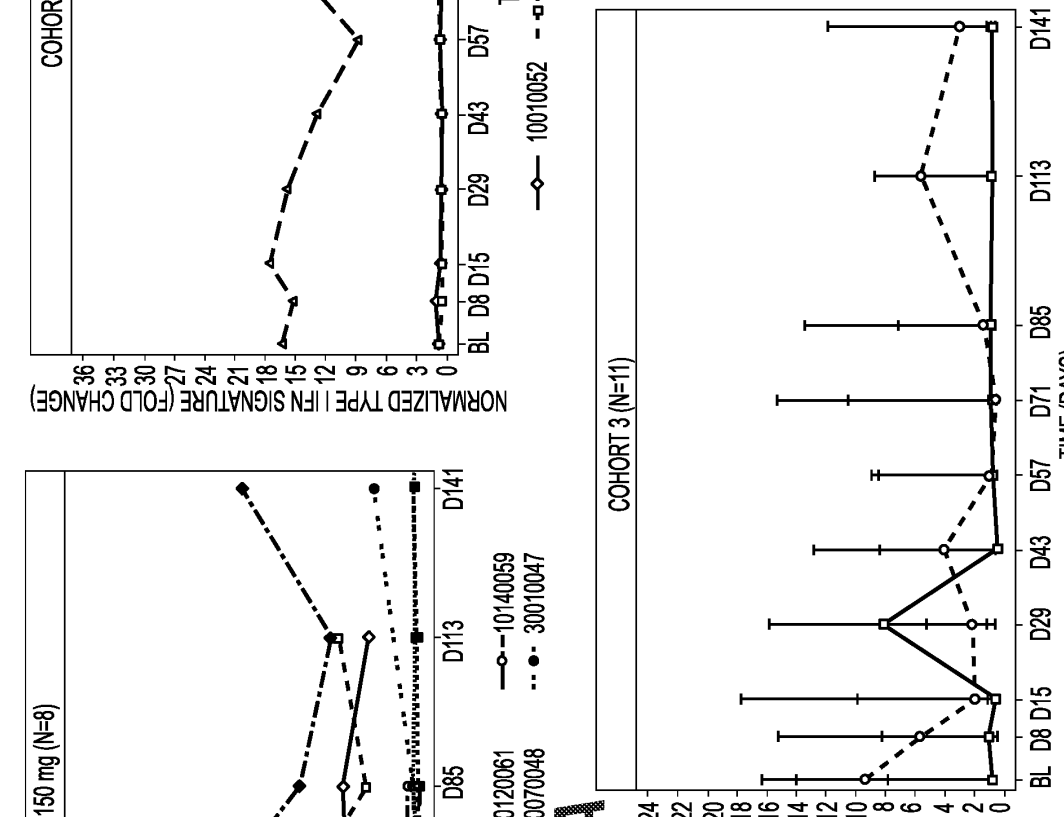


FIG. 55C

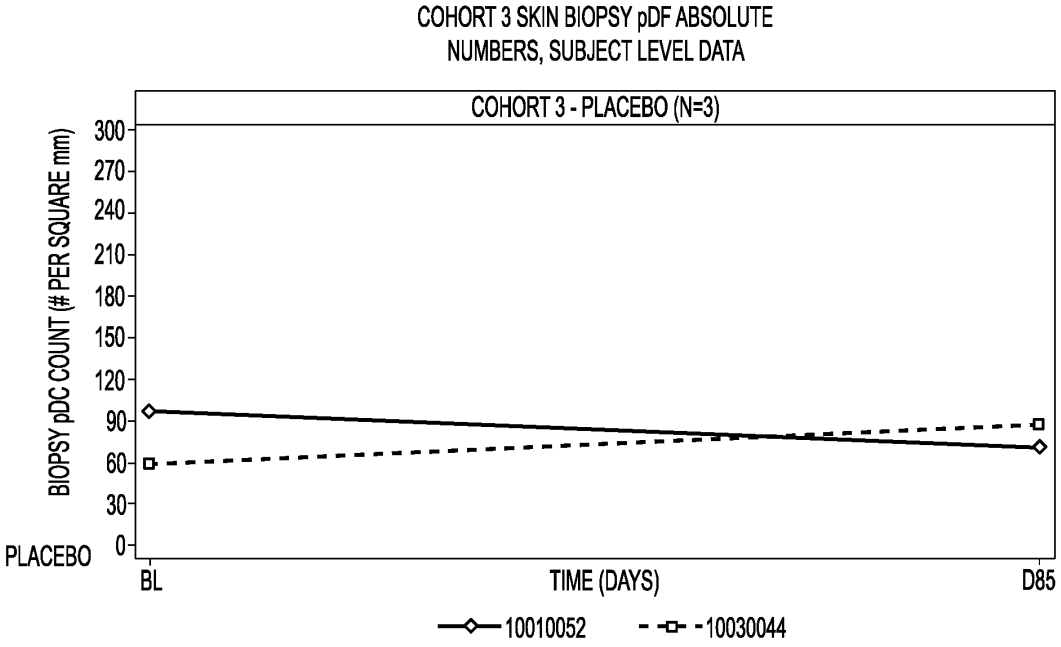


FIG. 56A

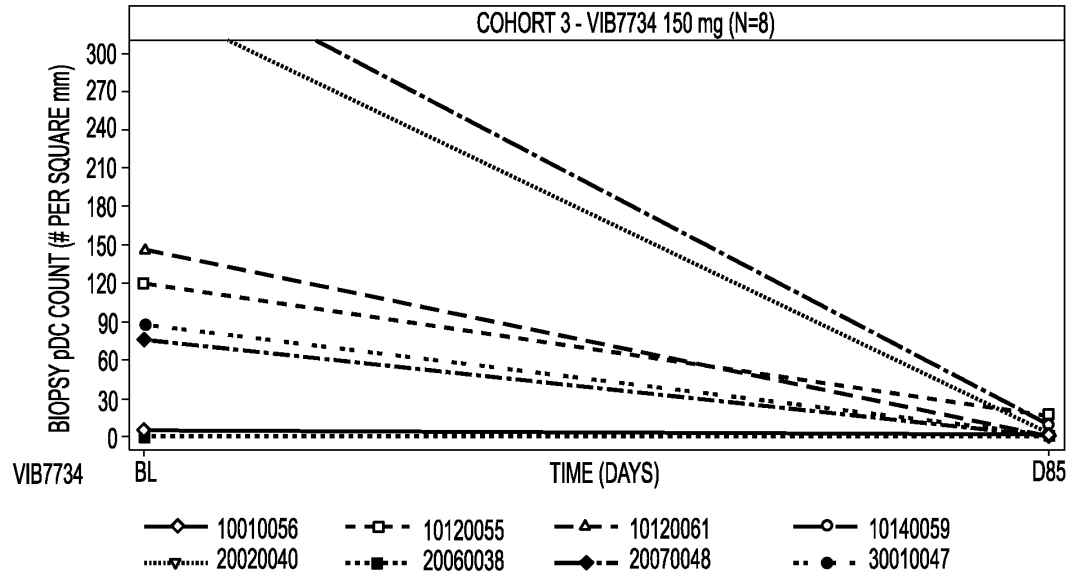


FIG. 56B

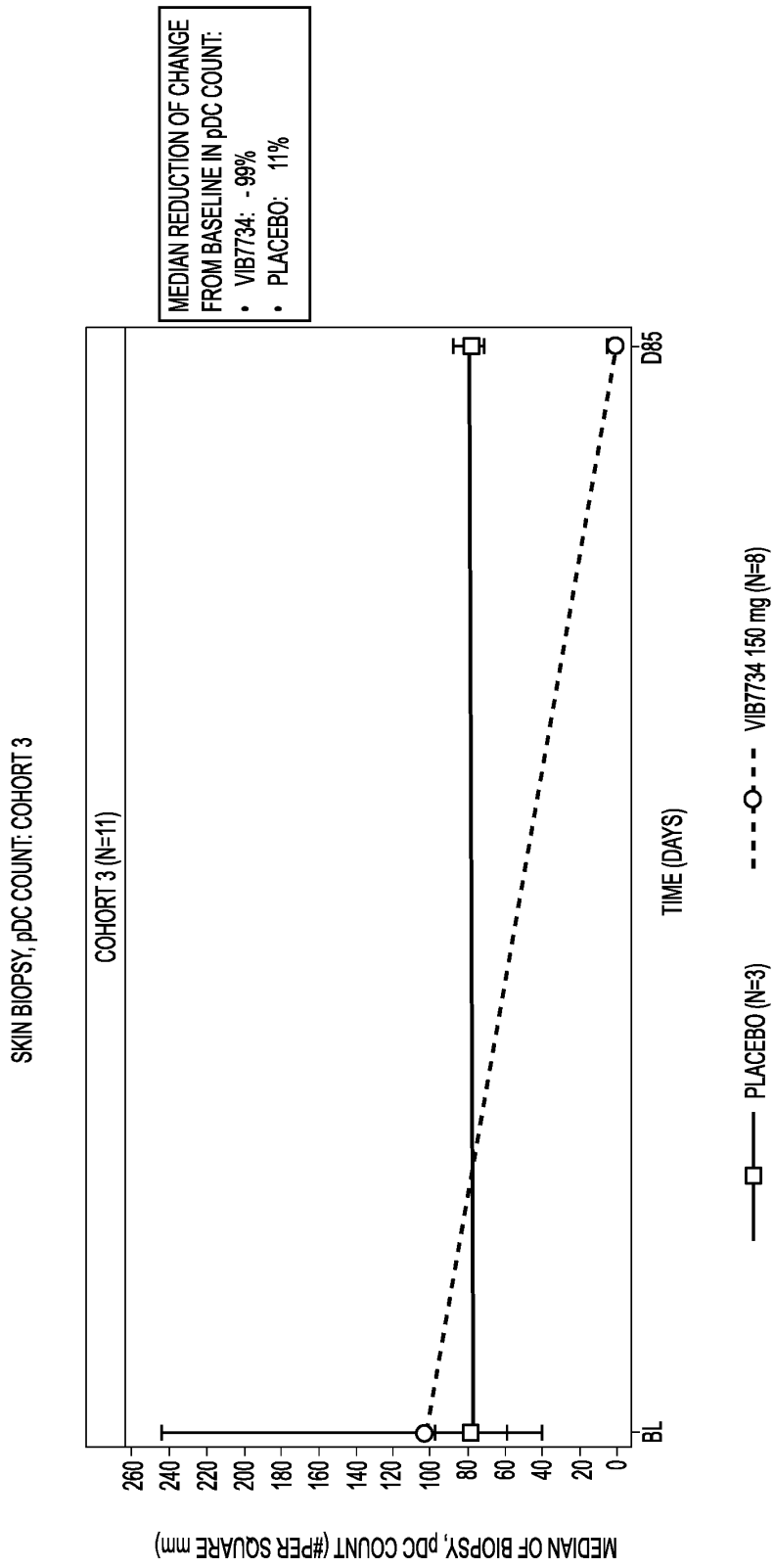

SKIN BIOPSY, pDC COUNT: COHORT 3
COHORT 3 (N=11)
MEDIAN REDUCTION OF CHANGE FROM BASELINE IN pDC COUNT:
• VIB7734: - 99%
• PLACEBO: 11%
MEDIAN OF BIOPSY, pDC COUNT (#PER SQUARE mm)
260
240
220
200
180
160
140
120
100
80
60
40
20
0
BL
D85
TIME (DAYS)
PLACEBO (N=3)
VIB7734 150 mg (N=8)

FIG. 57

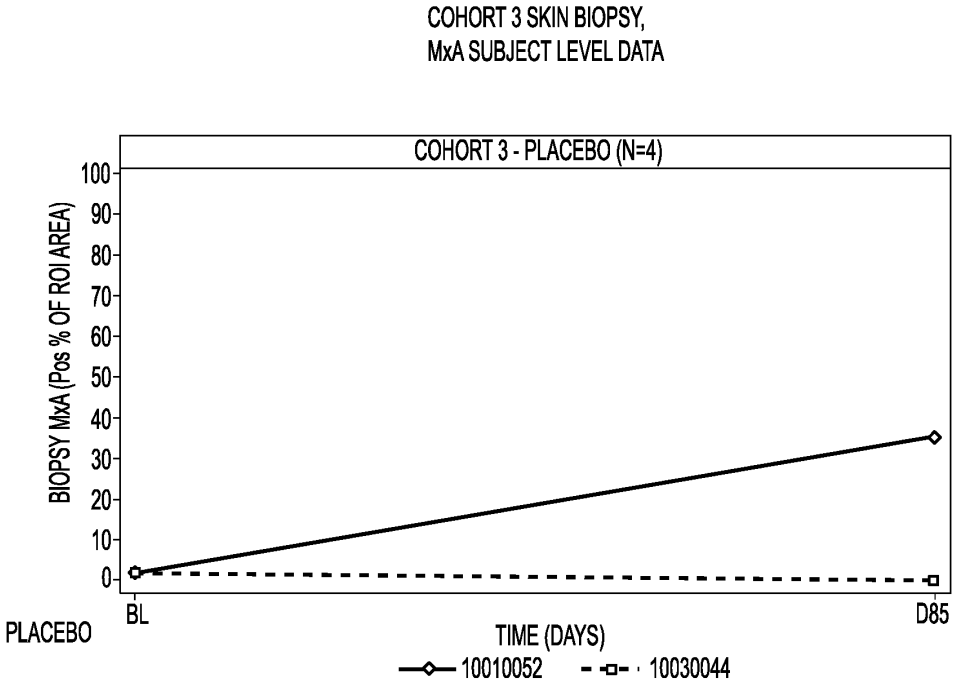


FIG. 58A

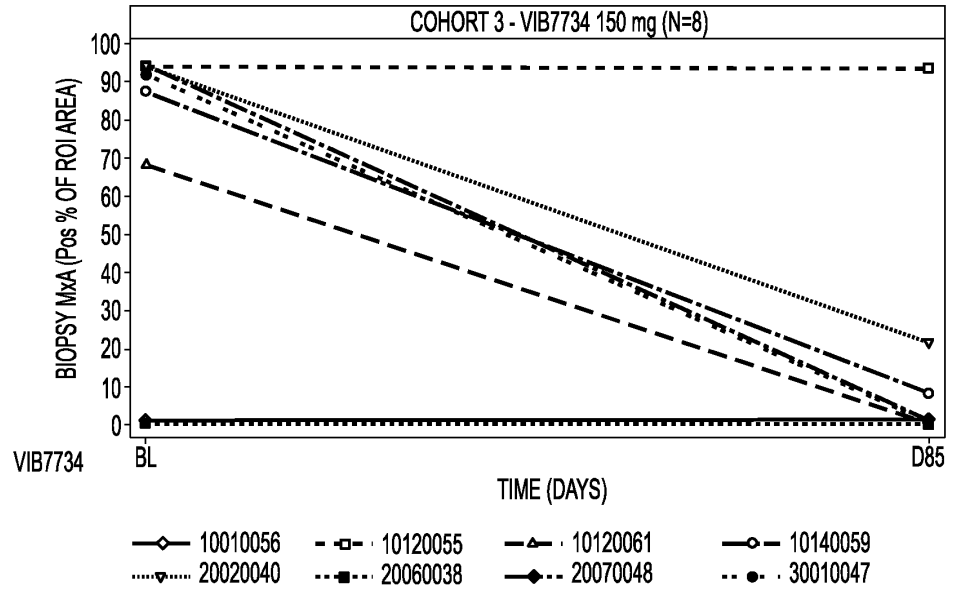


FIG. 58B

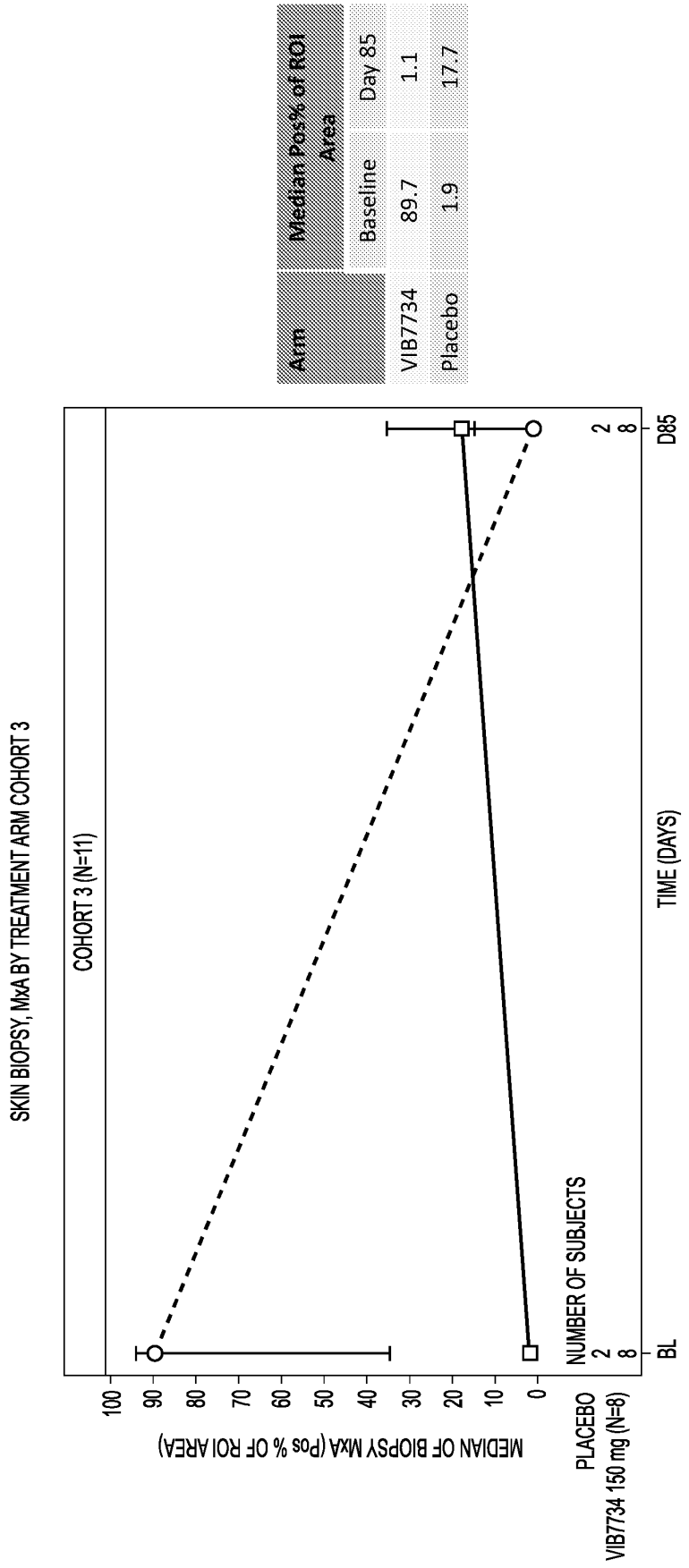

SKIN BIOPSY, MxA BY TREATMENT ARM COHORT 3
COHORT 3 (N=11)
MEDIAN OF BIOPSY MxA (Pos % OF ROI AREA)
100
90
80
70
60
50
40
30
20
10
0
BL
D85
TIME (DAYS)
NUMBER OF SUBJECTS
PLACEBO 2 8
VIB7734 150 mg (N=8) 2 8
PLACEBO (N=3)
VIB7734 150 mg (N=8)
Arm
Median Pos% of ROI Area
Baseline
Day 85
VIB7734 89.7 1.1
Placebo 1.9 17.7

FIG. 59

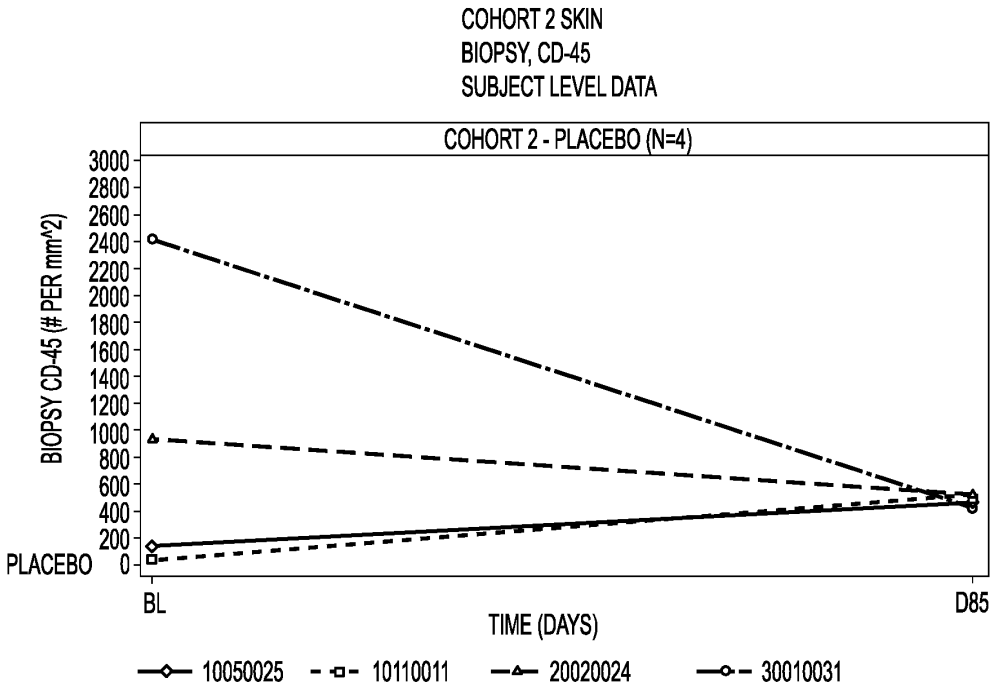


FIG. 60A

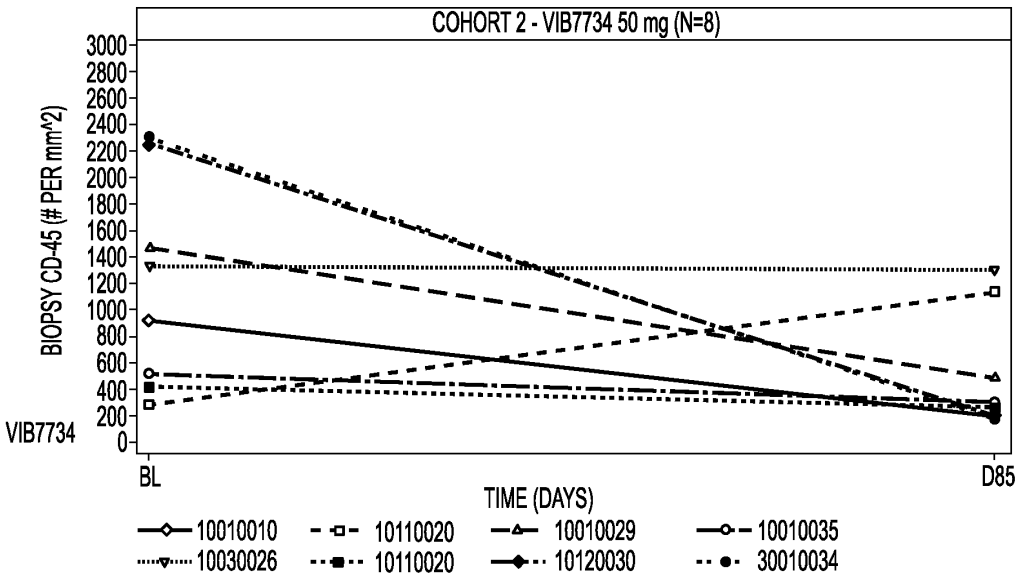


FIG. 60B

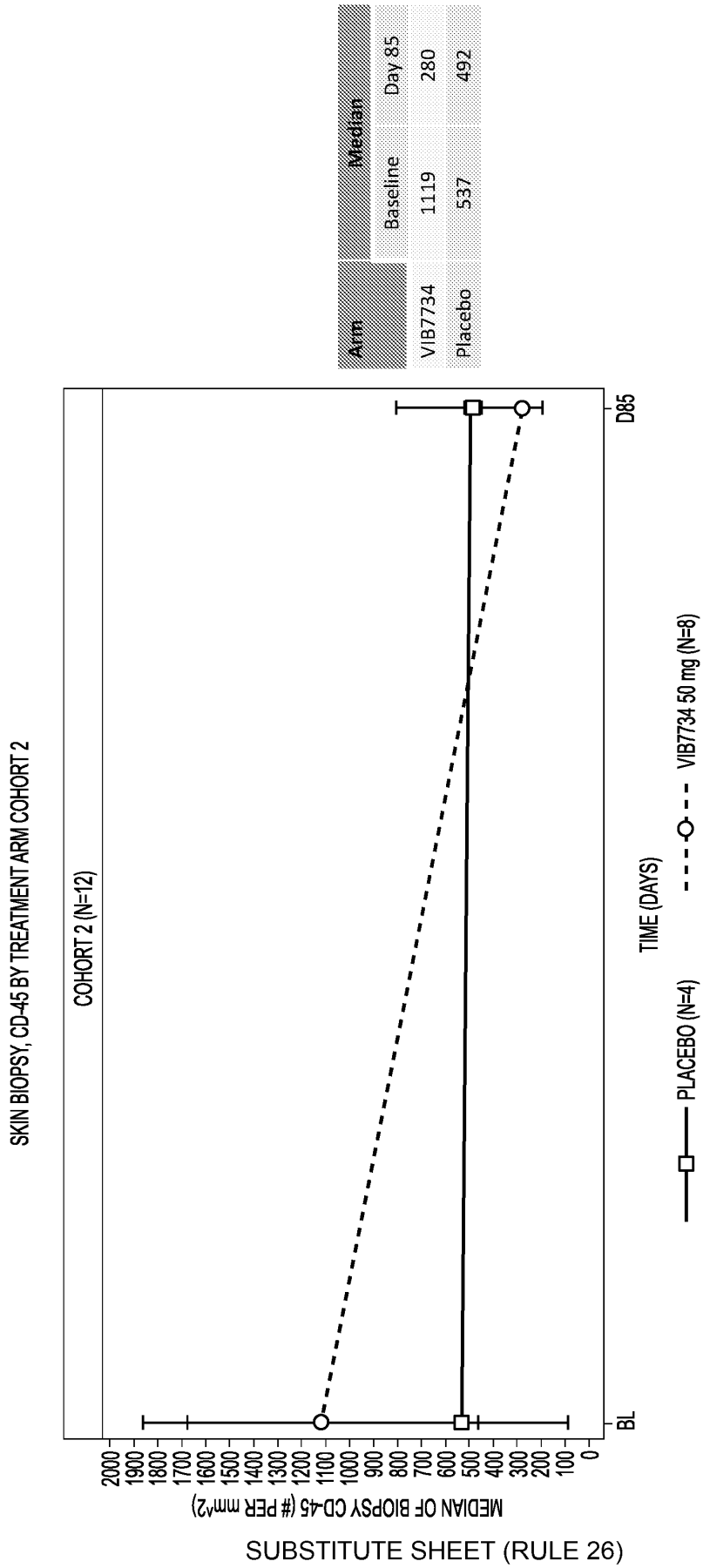

SKIN BIOPSY, CD-45 BY TREATMENT ARM COHORT 2
COHORT 2 (N=12)
MEDIAN OF BIOPSY CD-45 (# PER mm^2)
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
BL
D85
TIME (DAYS)
PLACEBO (N=4)
VIB7734 50 mg (N=8)
Arm
Median
Baseline
Day 85
VIB7734
1119
280
Placebo
537
492

FIG. 61

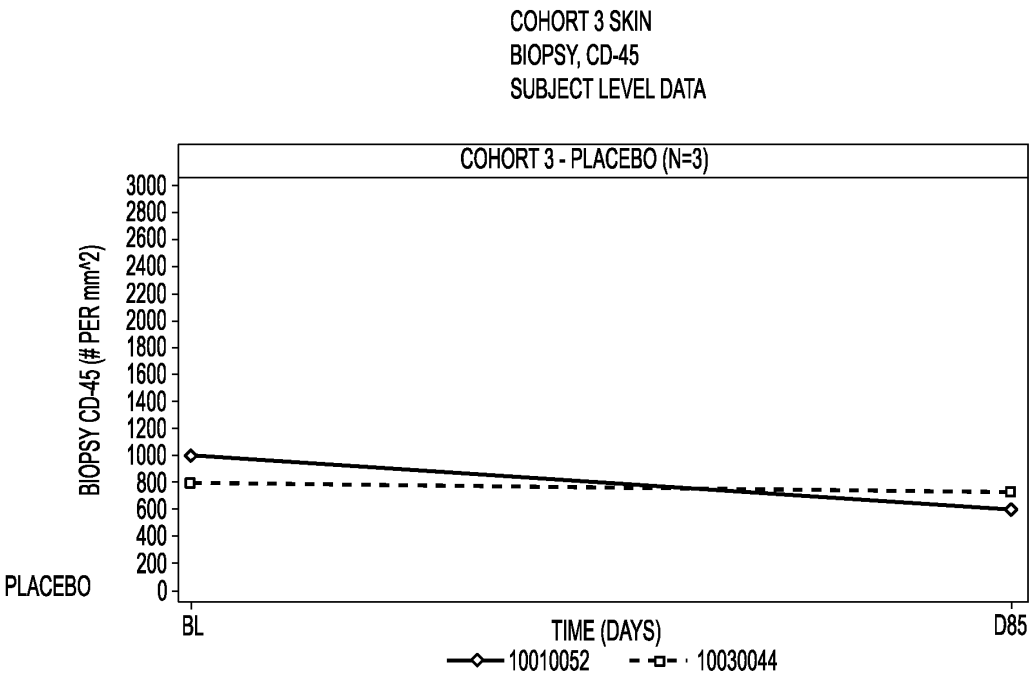


FIG. 62A

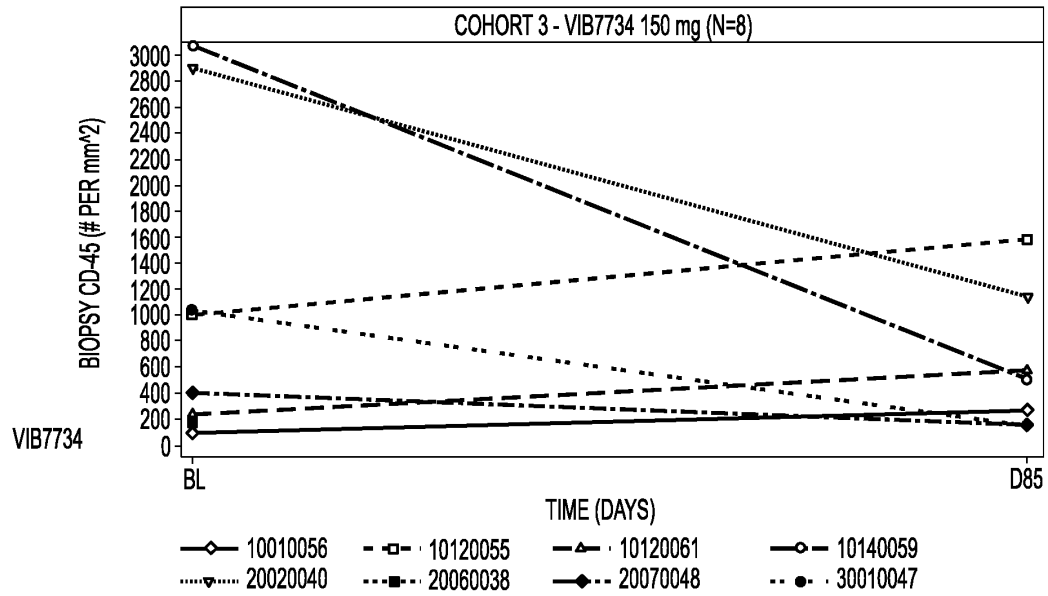


FIG. 62B

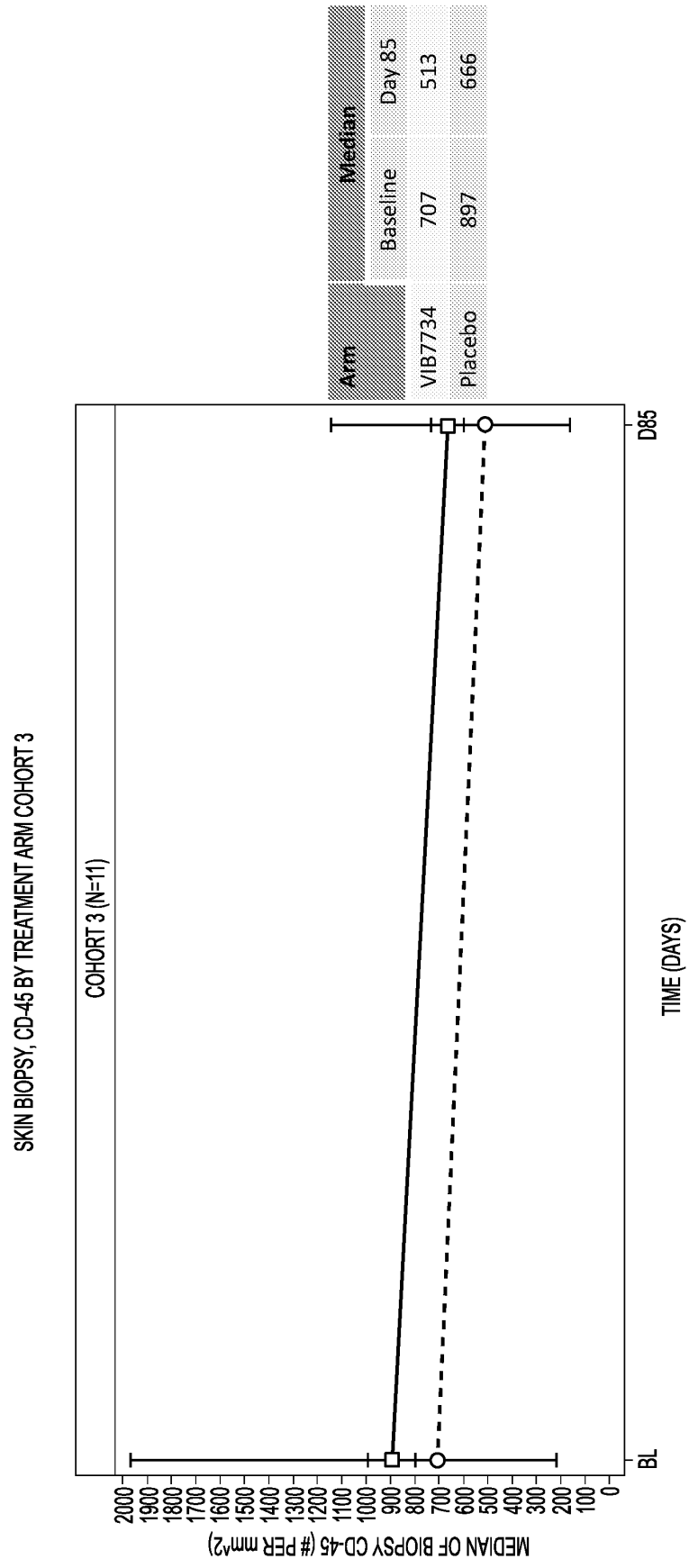

SKIN BIOPSY, CD-45 BY TREATMENT ARM COHORT 3
COHORT 3 (N=11)
MEDIAN OF BIOPSY CD-45 (# PER mm^2)
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
BL
D85
TIME (DAYS)
Arm
Median
Baseline
Day 85
VIB7734
707
513
Placebo
897
666
PLACEBO (N=3)
VIB7734 50 mg (N=8)

FIG. 63

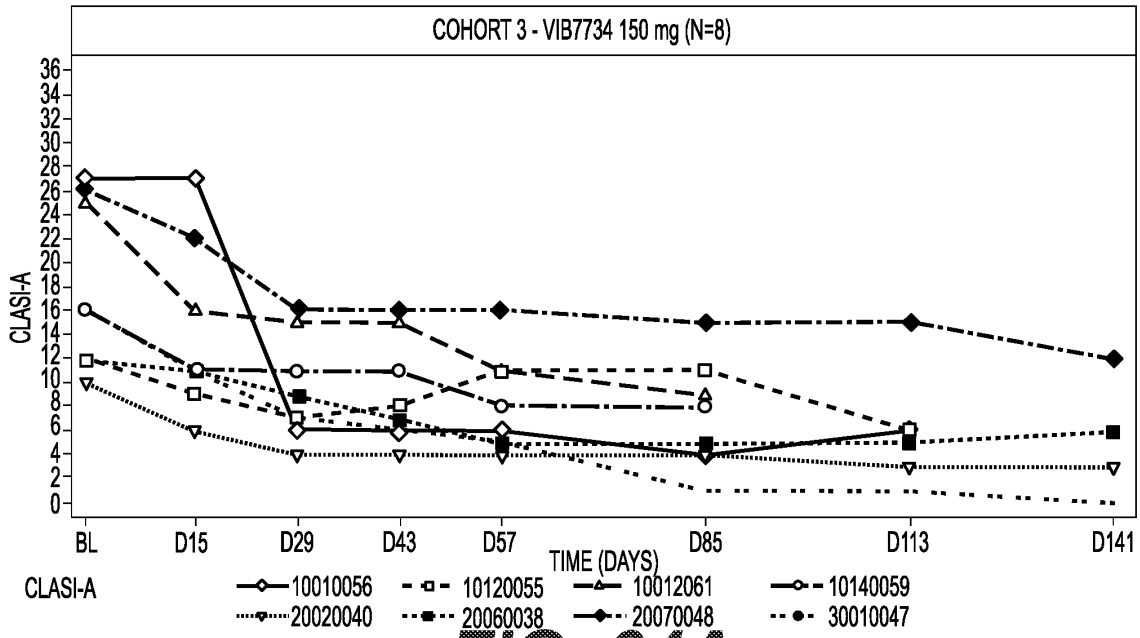


FIG. 64A

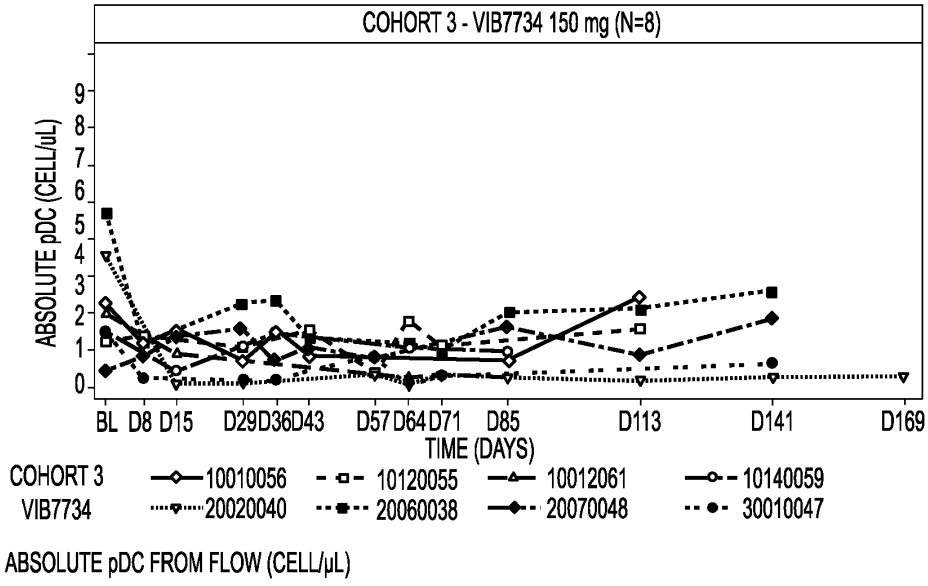


FIG. 64B

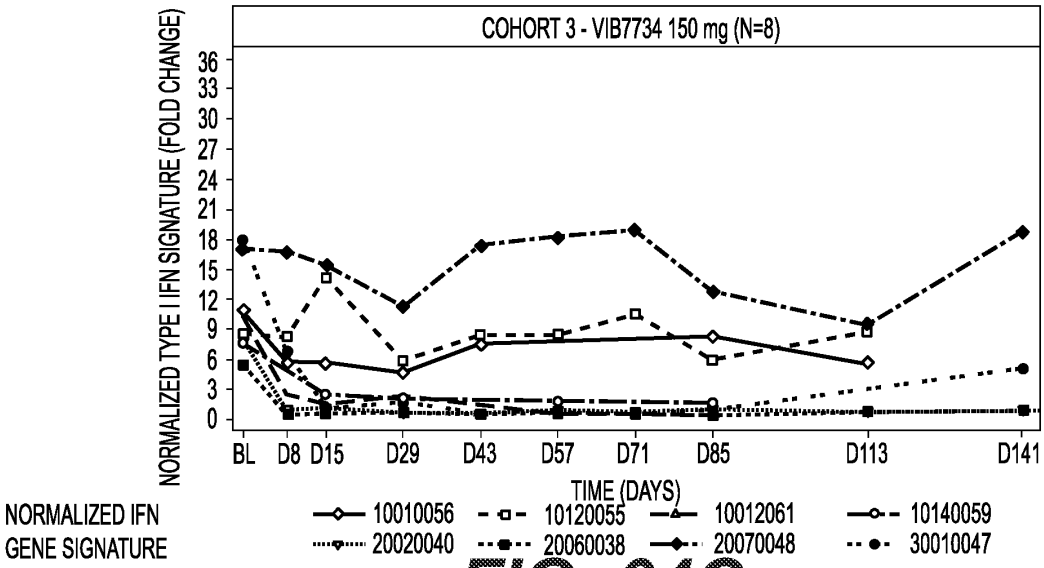


FIG. 64C

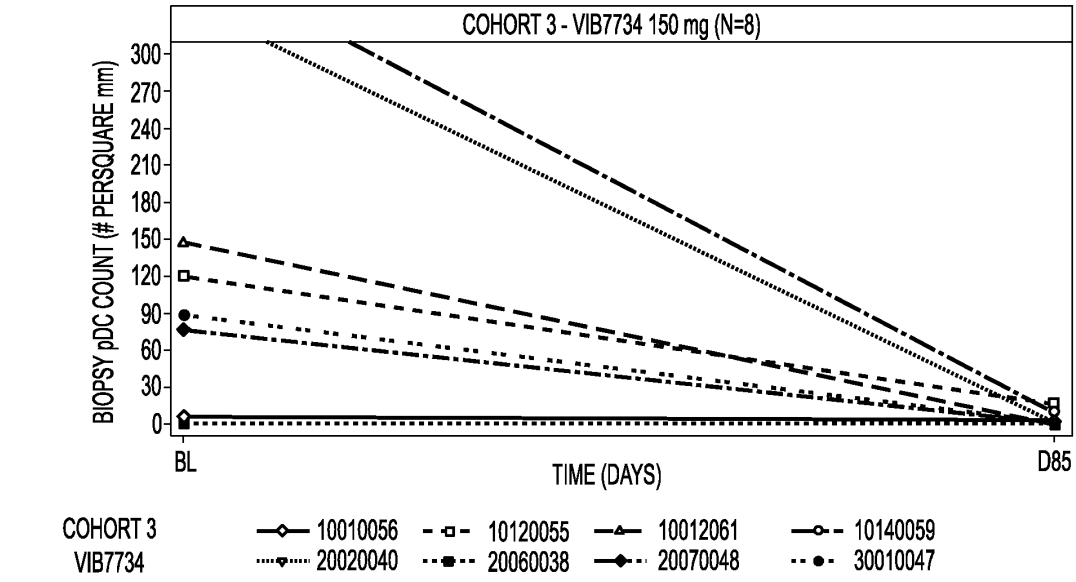


FIG. 64D

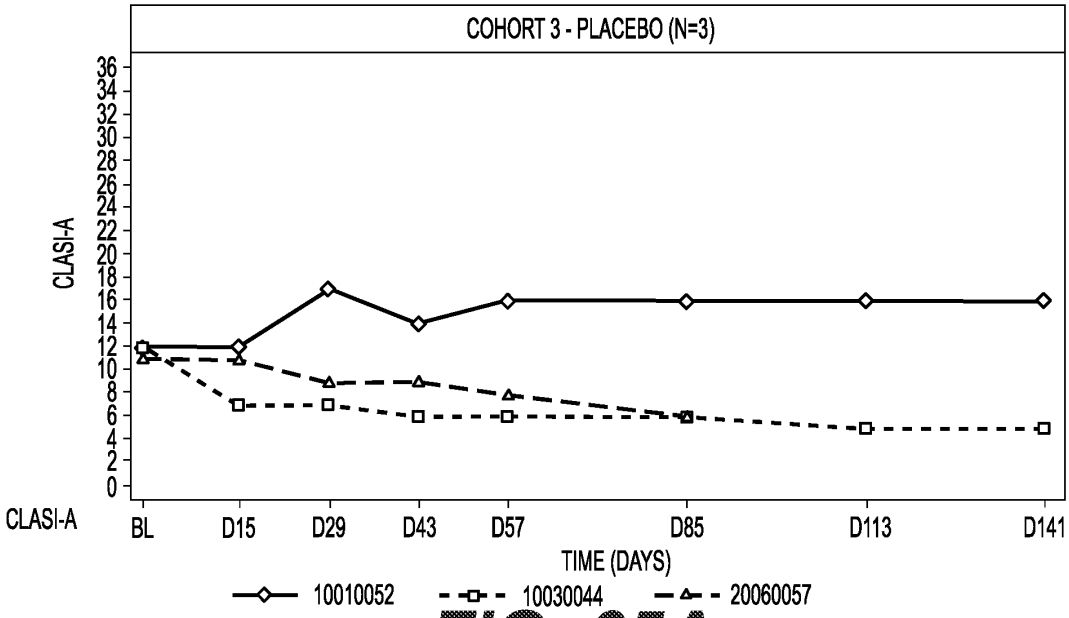


FIG. 65A

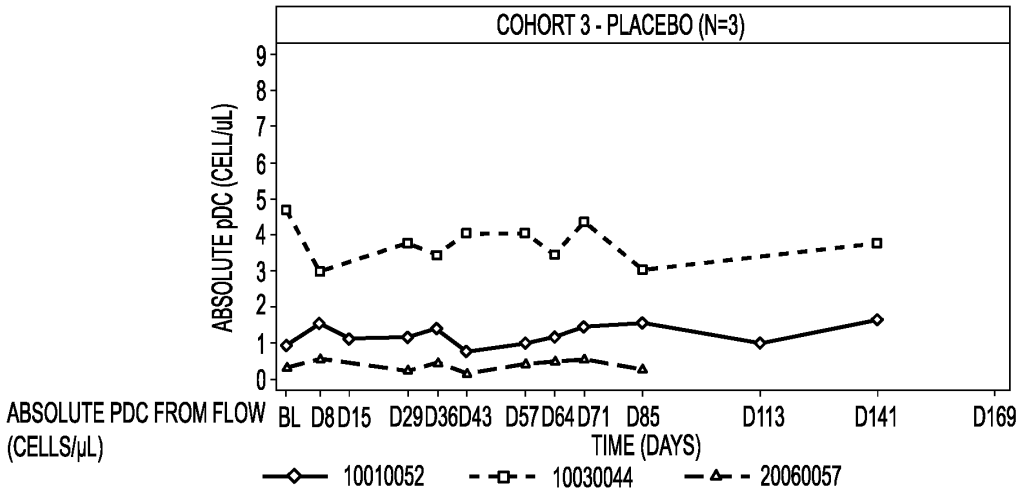


FIG. 65B

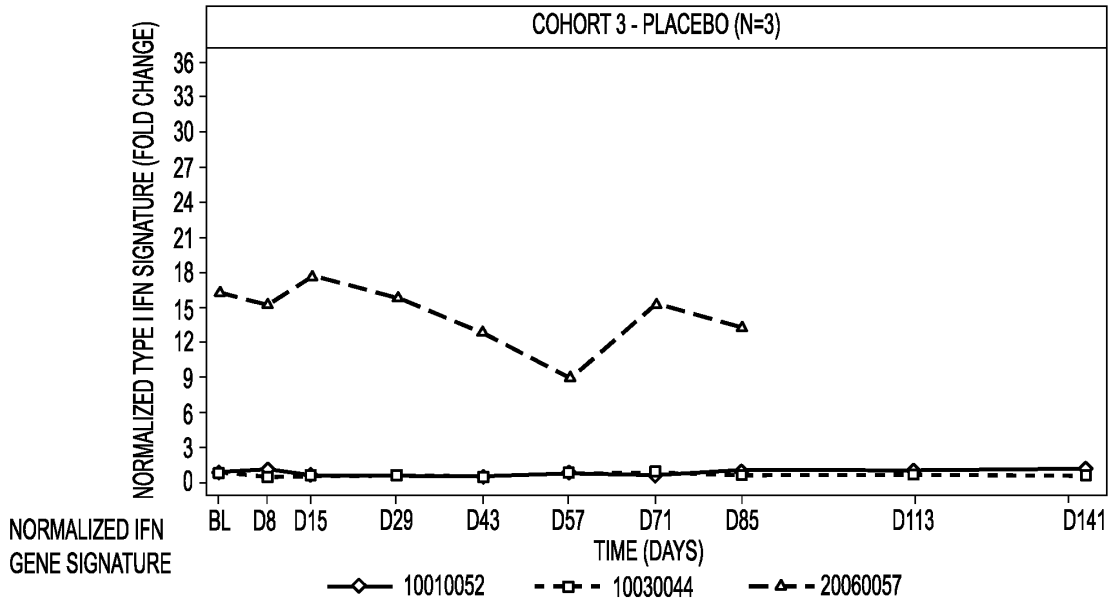


FIG. 65C

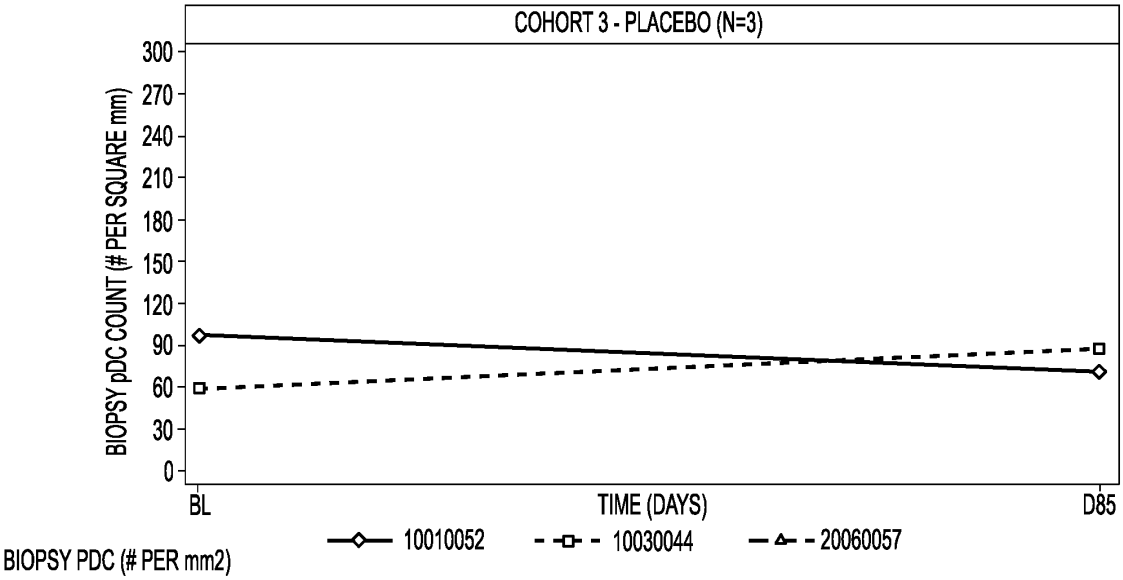


FIG. 65D

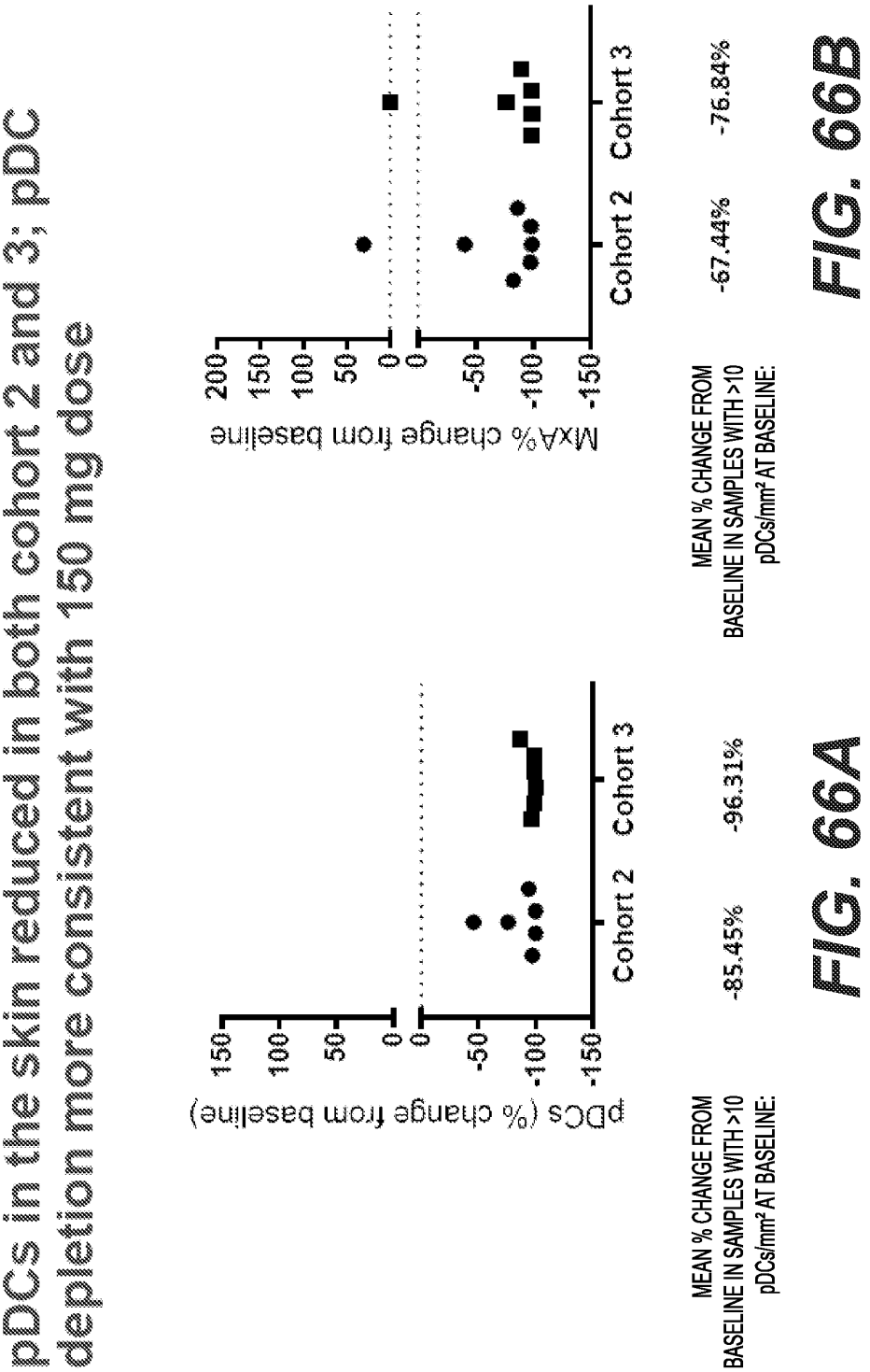


FIG. 66A

FIG. 66B

SUBSTITUTE SHEET (RULE 26)

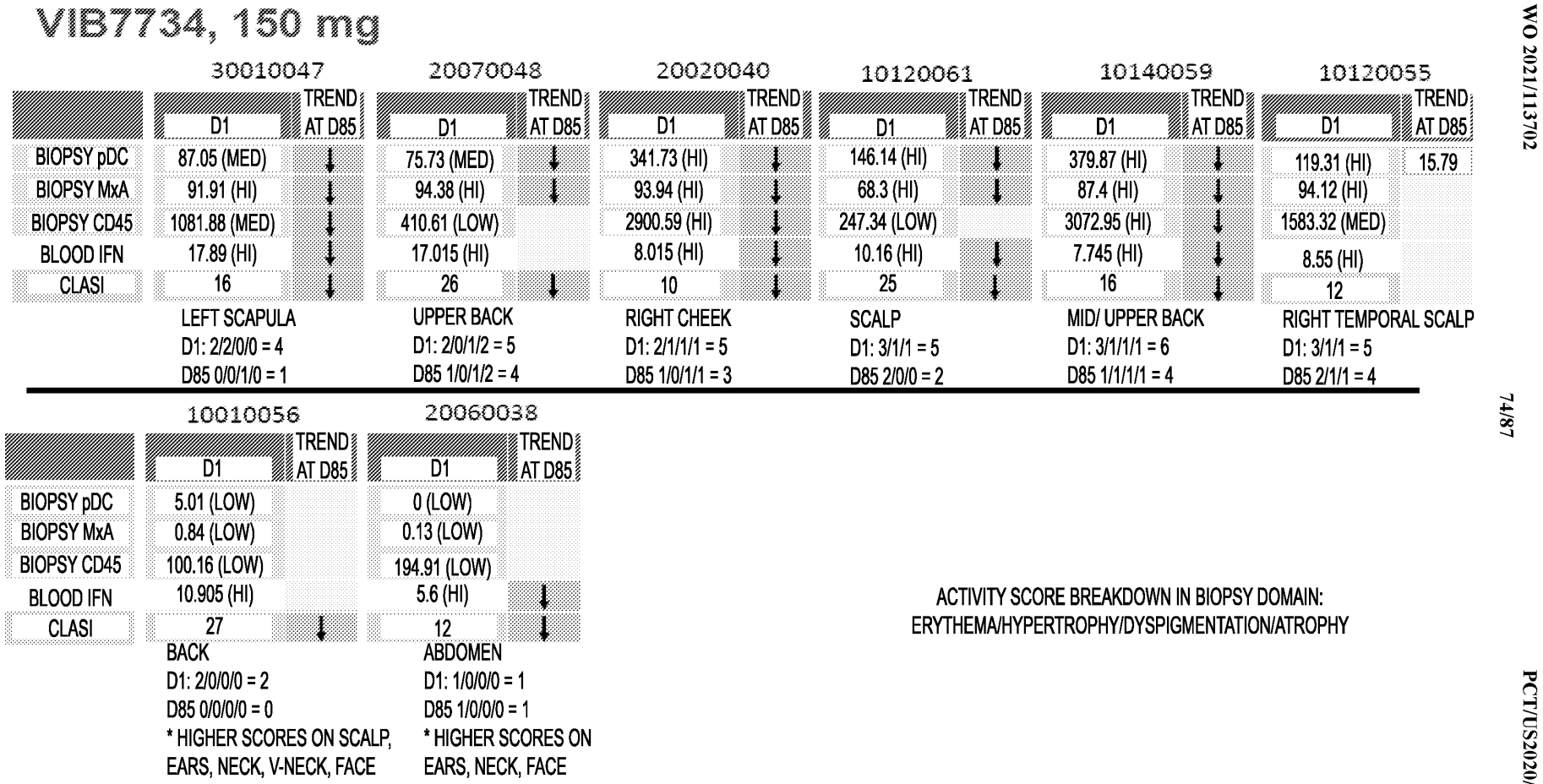


FIG. 67A

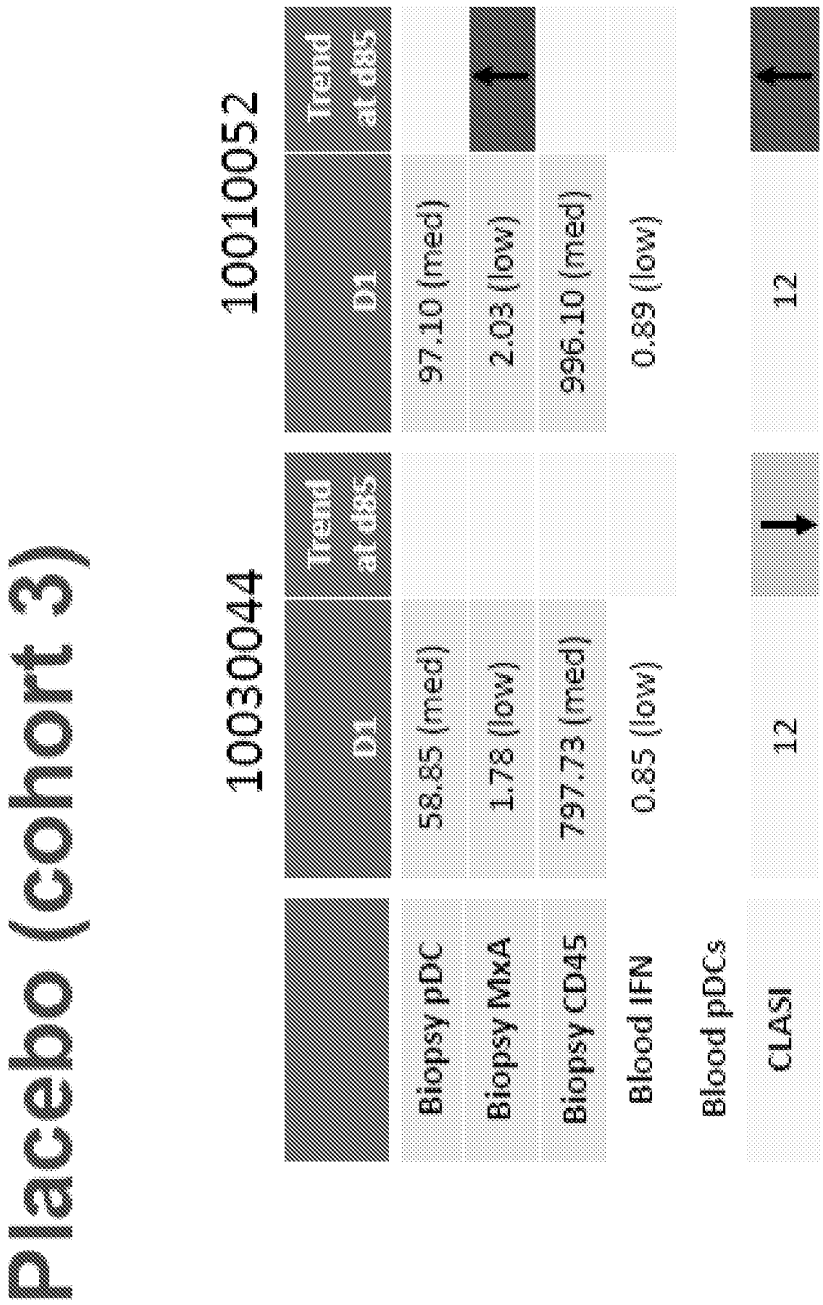

Placebo (cohort 3)
10030044
10010052
D1
Trend p-adjs
D1
Trend p-adjs
Biopsy pDC
58.85 (med)
97.10 (med)
Biopsy MxA
1.78 (low)
2.03 (low)
Biopsy CD45
797.73 (med)
996.10 (med)
Blood IFN
0.85 (low)
0.89 (low)
Blood pDCs
CLASI
12
12

FIG. 67B

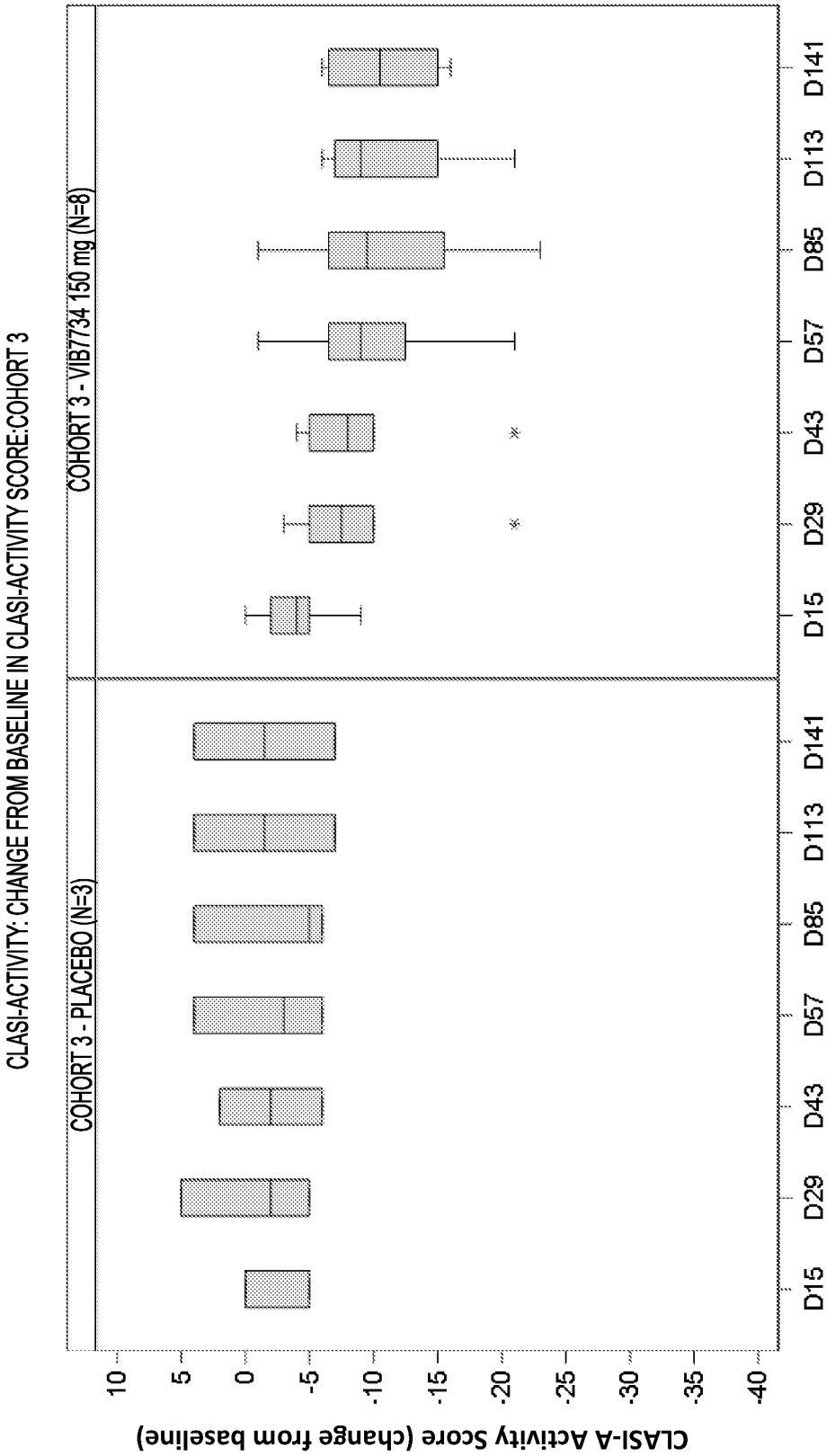

CLASI-ACTIVITY: CHANGE FROM BASELINE IN CLASI-ACTIVITY SCORE:COHORT 3
COHORT 3 - PLACEBO (N=3)
COHORT 3 - VIB7734 150 mg (N=8)
CLASI-A Activity Score (change from baseline)
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
D15
D29
D43
D57
D85
D113
D141
TIME (DAYS)

FIG. 68

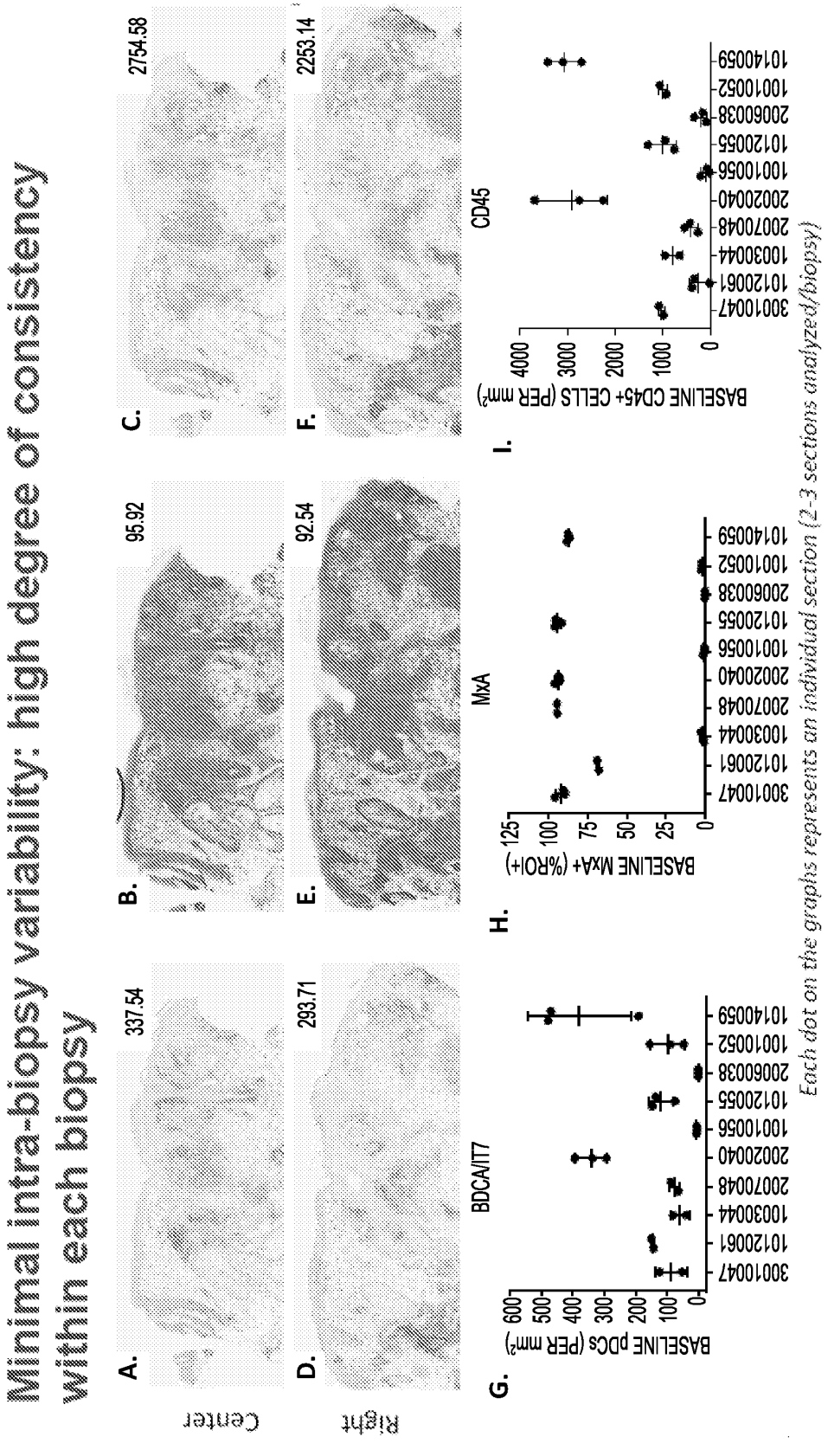

Minimal intra-biopsy variability: high degree of consistency within each biopsy
A.
337.54
B.
95.92
C.
2754.58
Center
D.
293.71
E.
92.54
F.
2253.14
Right
G.
BDCA/IT7
BASELINE pDCs (PER mm²)
H.
MxA
BASELINE MxA+ (%ROI+)
I.
CD45
BASELINE CD45+ CELLS (PER mm²)
Each dot on the graphs represents an individual section (2-3 sections analyzed/biopsy)

FIG. 69

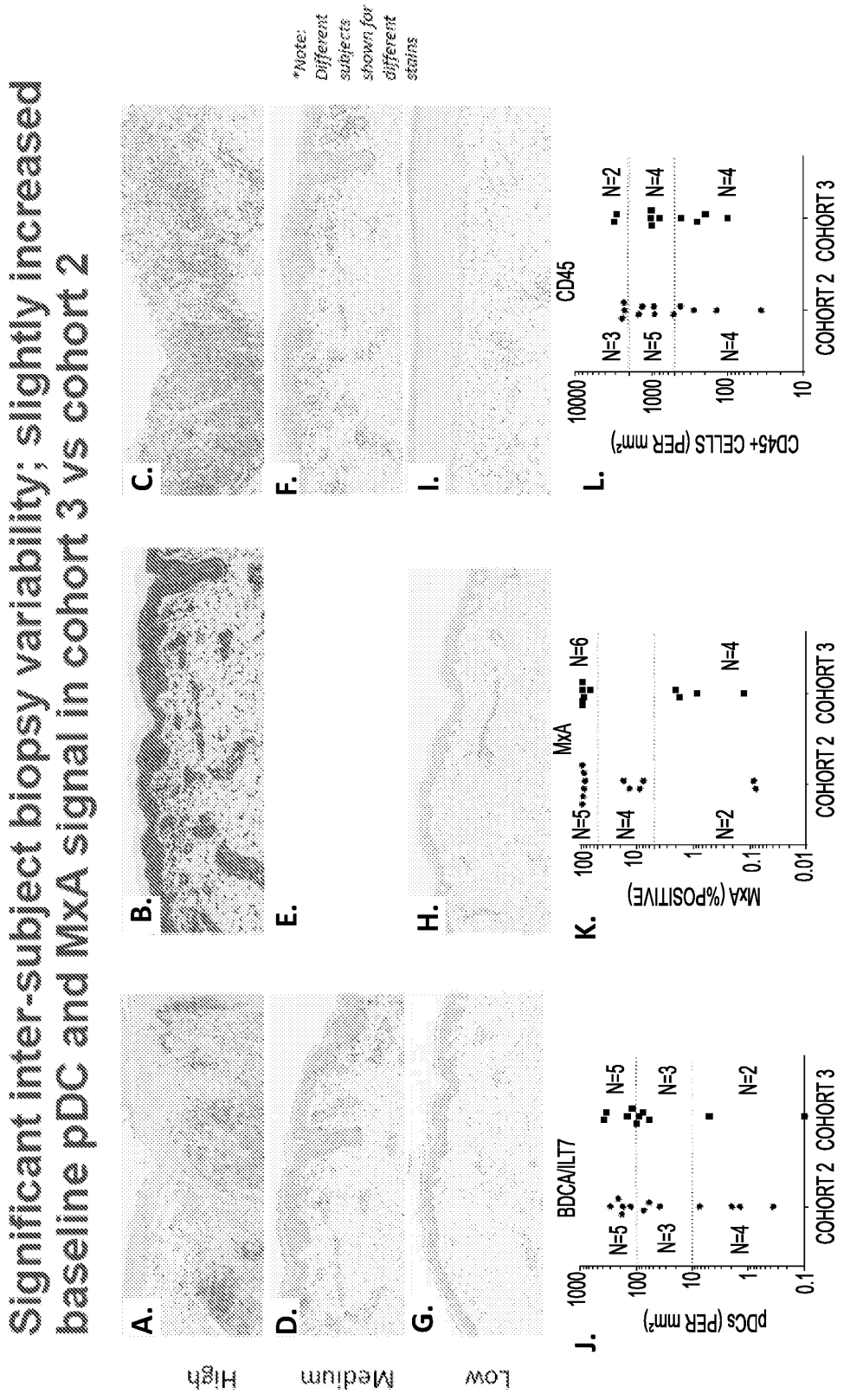

Significant inter-subject biopsy variability; slightly increased baseline pDC and MxA signal in cohort 3 vs cohort 2
A.
B.
C.
D.
E.
F.
G.
H.
I.
High
Medium
Low
*Note: Different subjects shown for different stains
J.
pDCs (PER mm²)
BDCA/IL7
N=5
N=3
N=4
N=2
N=5
N=3
COHORT 2
COHORT 3
K.
MxA (%POSITIVE)
MxA
N=5
N=4
N=2
N=6
N=4
L.
CD45+ CELLS (PER mm²)
CD45
N=3
N=5
N=4
N=2
N=4

FIG. 70

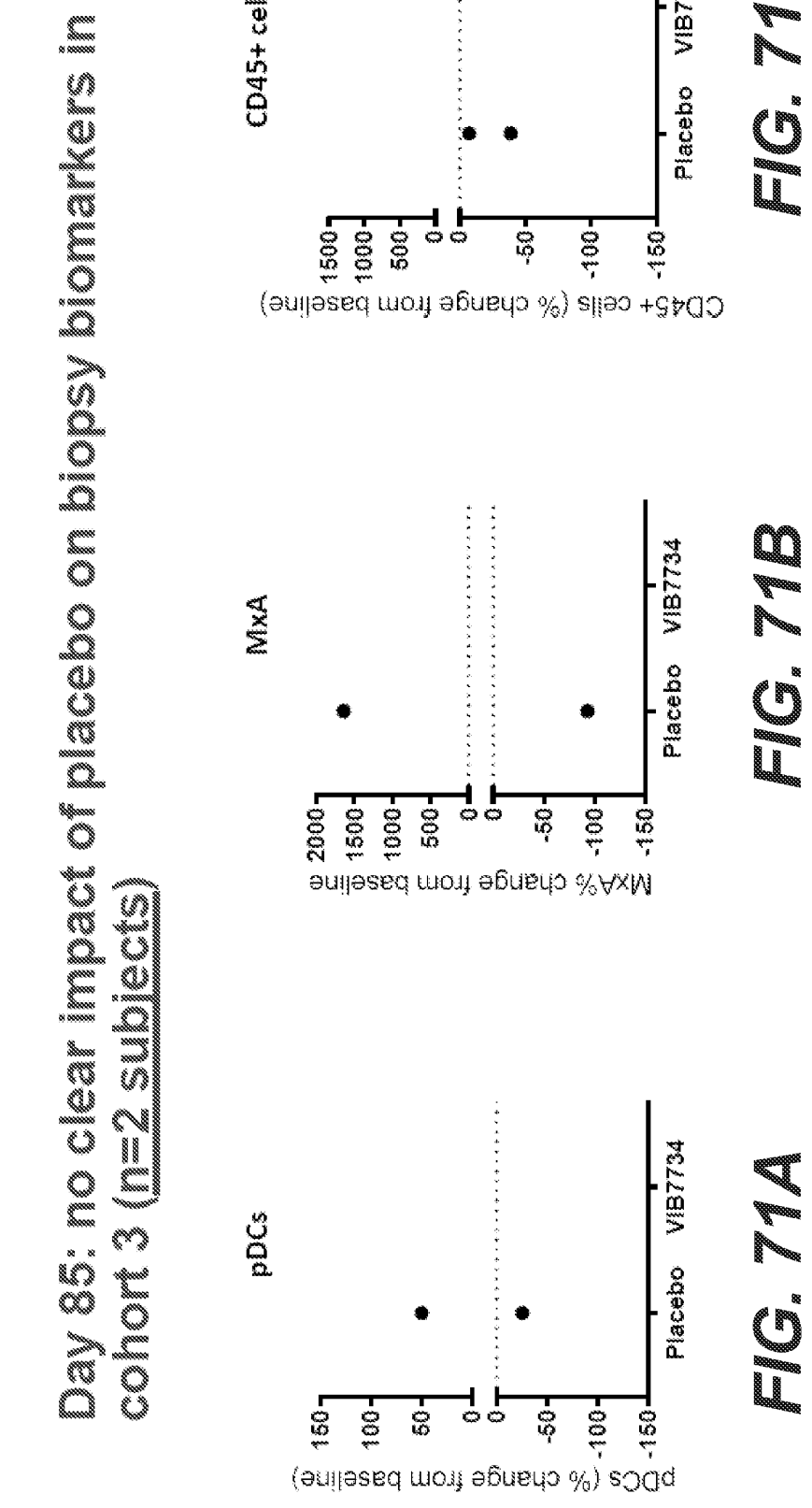


FIG. 71A

FIG. 71B

FIG. 71C

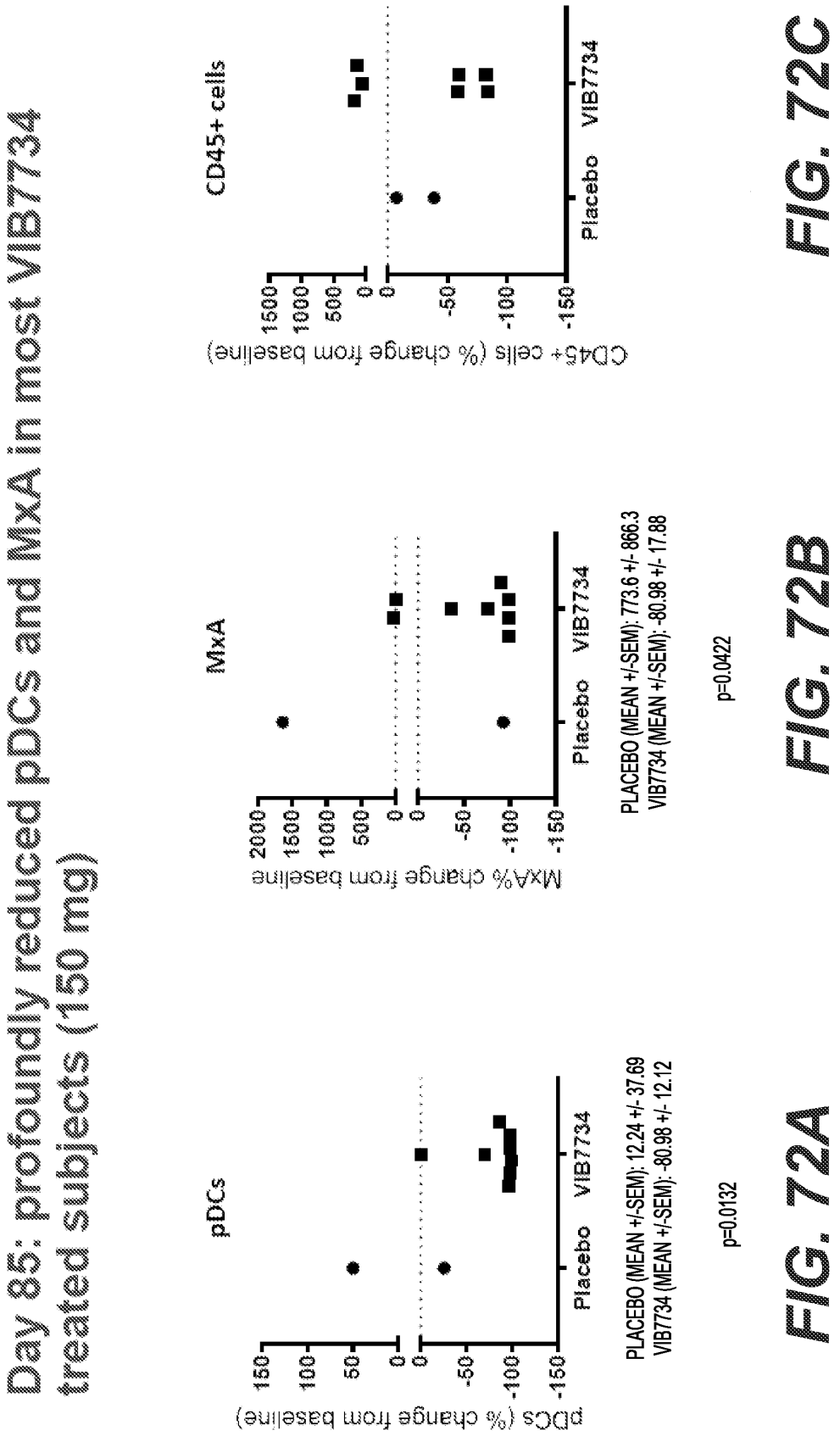


FIG. 72A FIG. 72B FIG. 72C

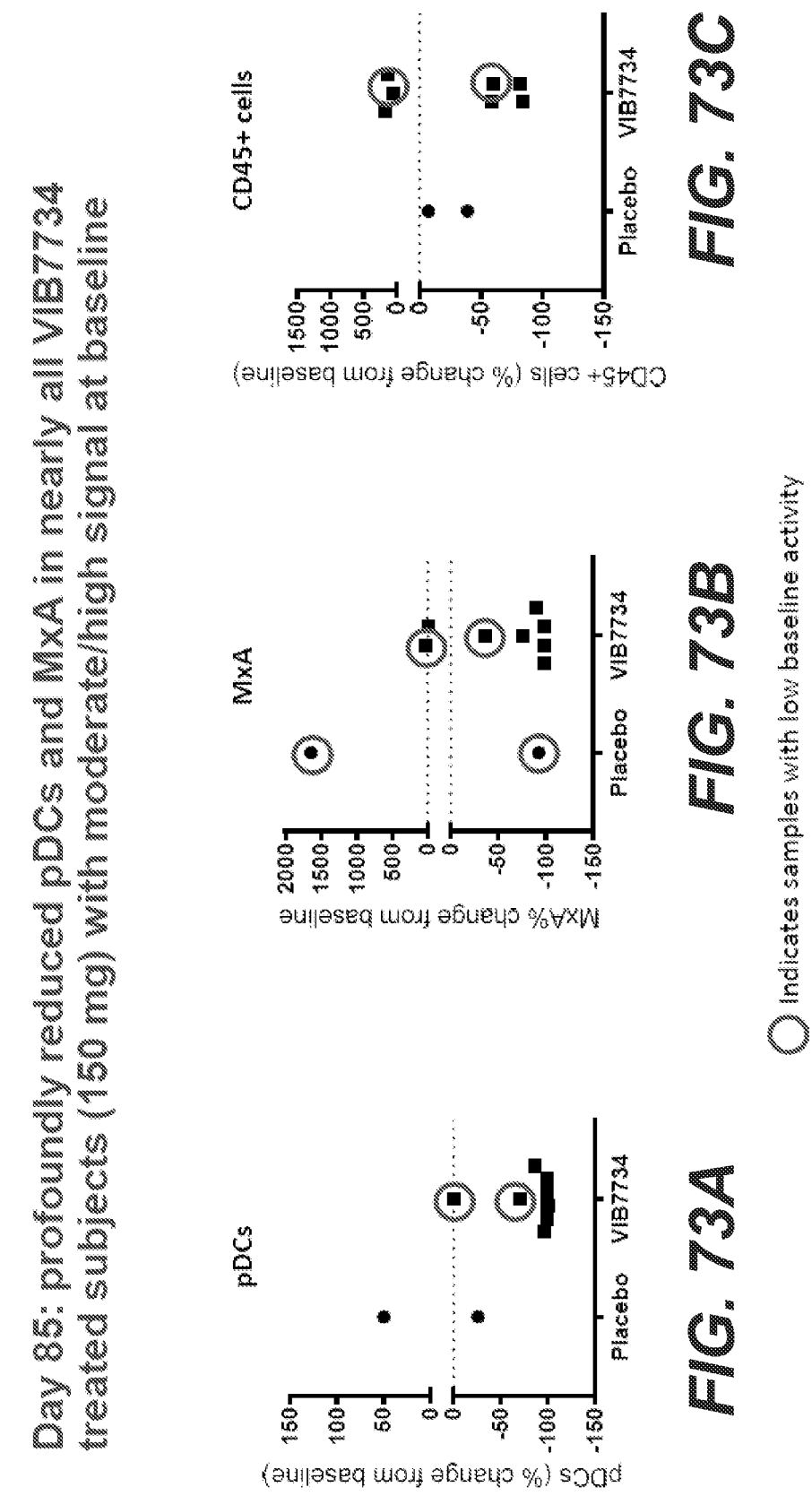


FIG. 73A

FIG. 73B

FIG. 73C

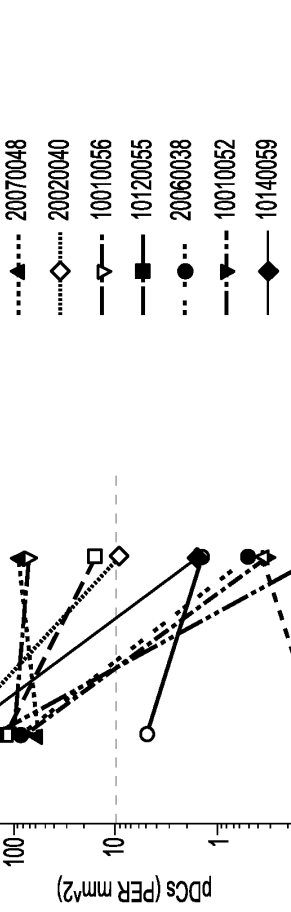


FIG. 74C

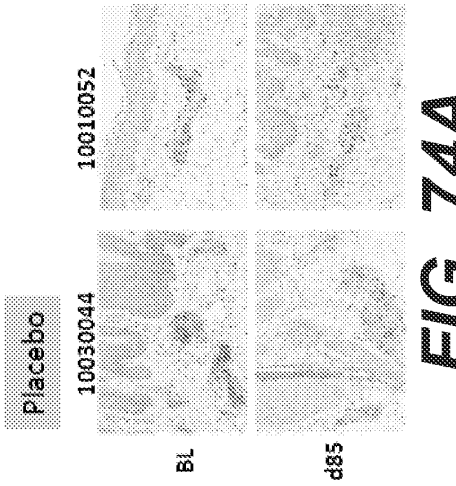
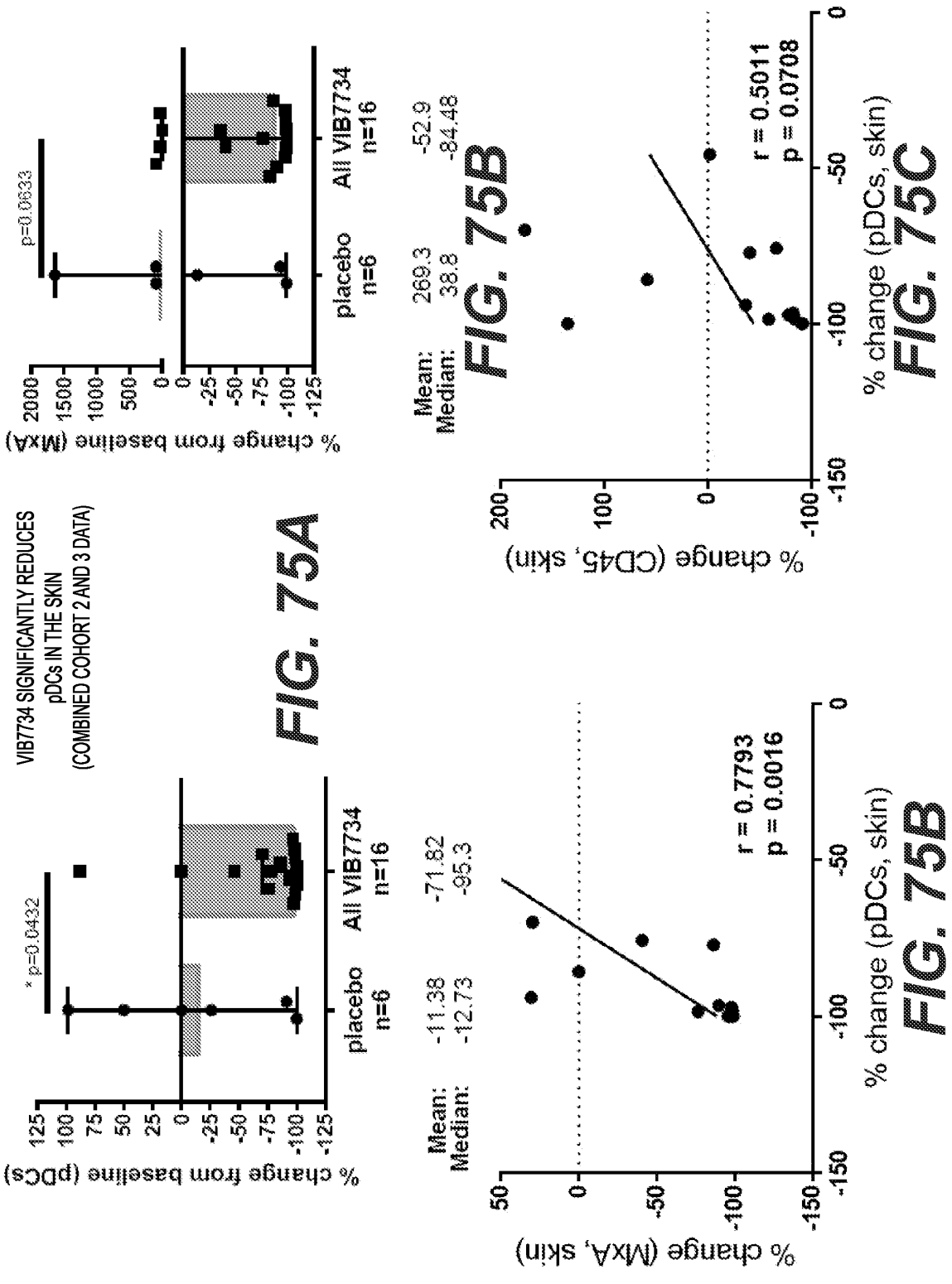


FIG. 74A



FIG. 74B


VIB7734 SIGNIFICANTLY REDUCES
pDCs IN THE SKIN
(COMBINED COHORT 2 AND 3 DATA)
* p=0.0432
% change from baseline (pDCs)
placebo n=6
All VIB7734 n=16
FIG. 75A
p=0.0633
% change from baseline (MxA)
placebo n=6
All VIB7734 n=16
Mean: -11.38 -71.82
Median: -12.73 -95.3
r = 0.7793
p = 0.0016
% change (MxA, skin)
% change (pDCs, skin)
FIG. 75B
Mean: 269.3 -52.9
Median: 38.8 -84.48
r = 0.5011
p = 0.0708
% change (CD45, skin)
% change (pDCs, skin)
FIG. 75C

pDCs in the skin reduced in both cohort 2 and 3; pDC depletion more consistent with 150 mg dose

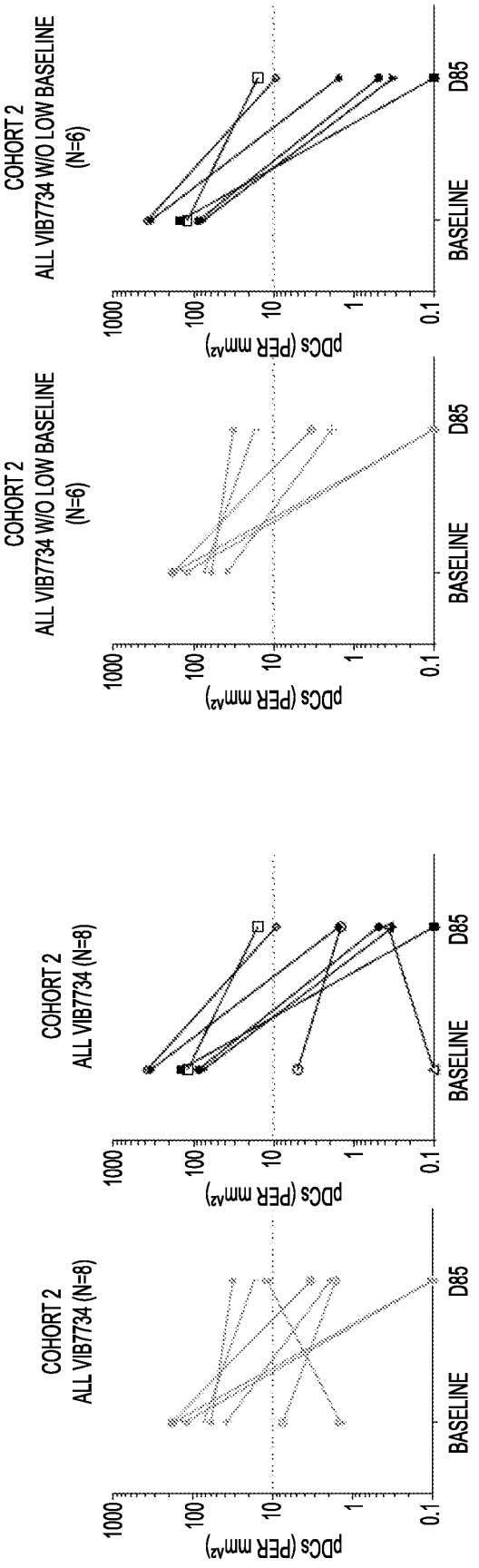


FIG. 76A FIG. 76B FIG. 76C FIG. 76D

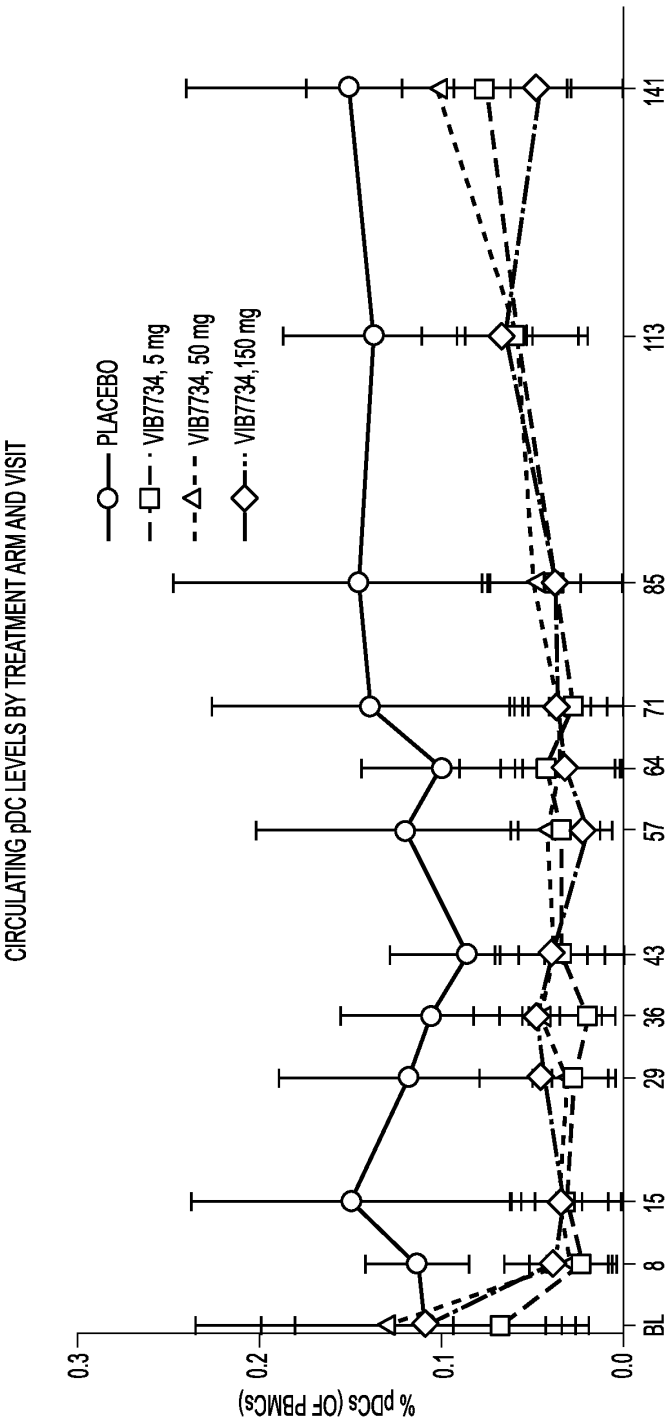

CIRCULATING pDC LEVELS BY TREATMENT ARM AND VISIT
PLACEBO
VIB7734, 5 mg
VIB7734, 50 mg
VIB7734,150 mg
% pDCs (OF PBMCs)
0.3
0.2
0.1
0.0
BL
8
15
29
36
43
57
64
71
85
113
141
STUDY DAY

FIG. 77

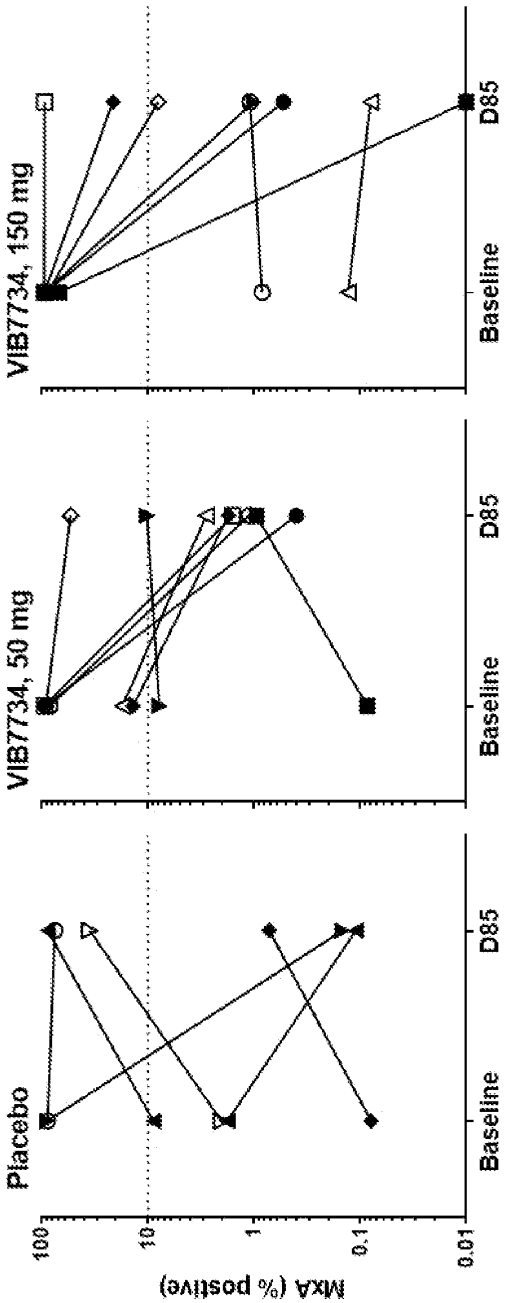


FIG. 78A FIG. 78B FIG. 78C

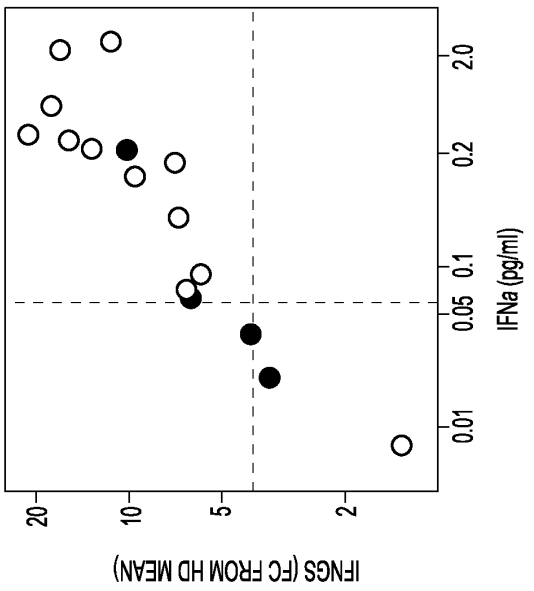


FIG. 79C

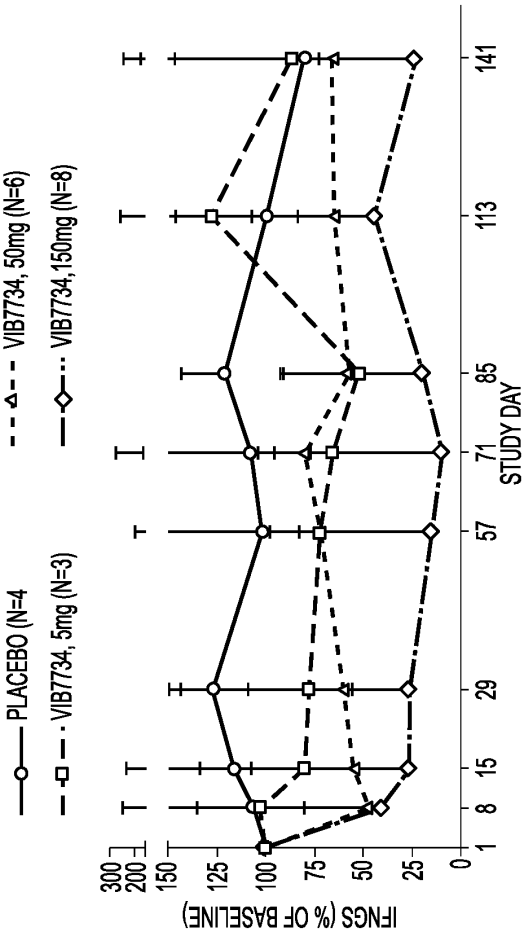


FIG. 79A

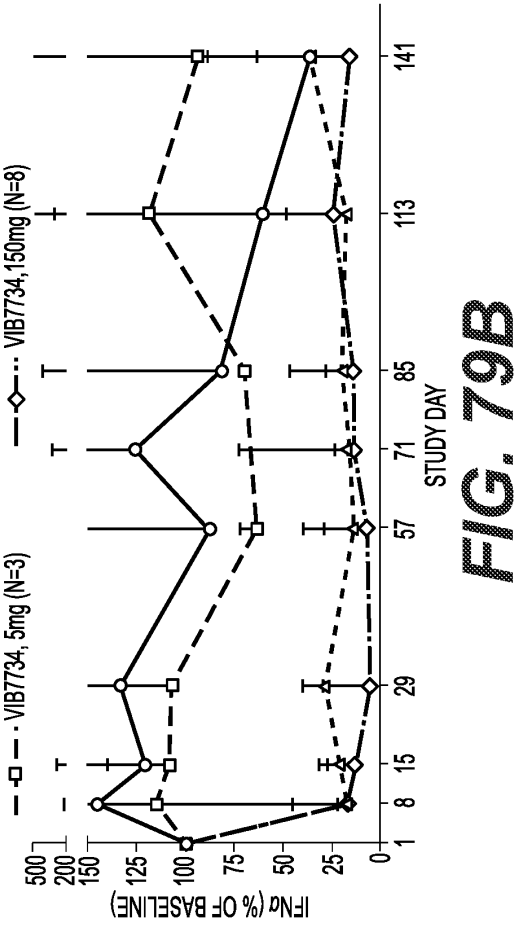


FIG. 79B