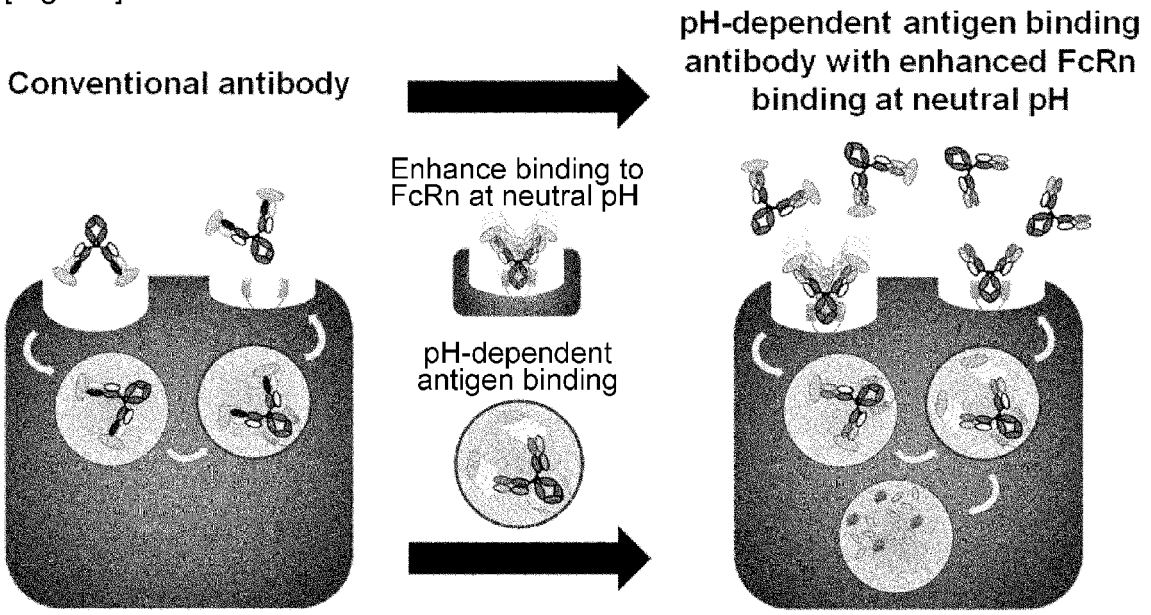
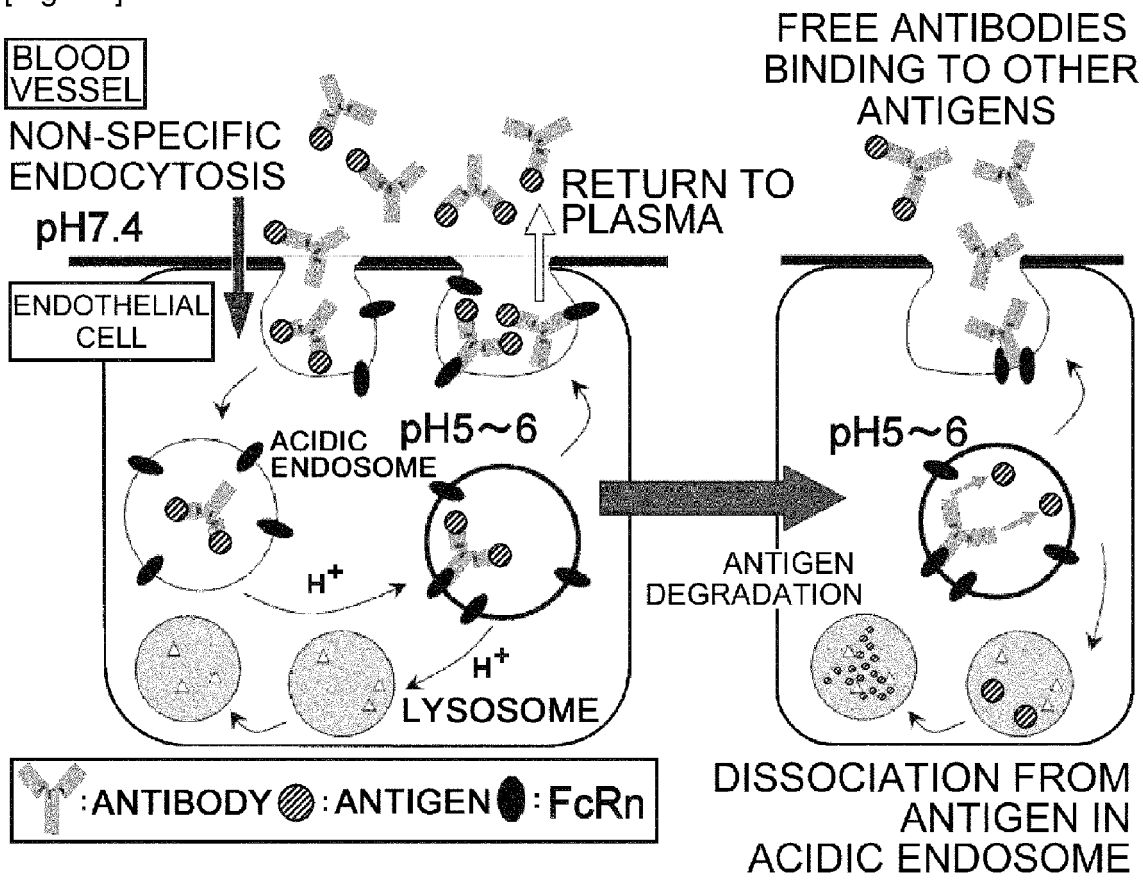
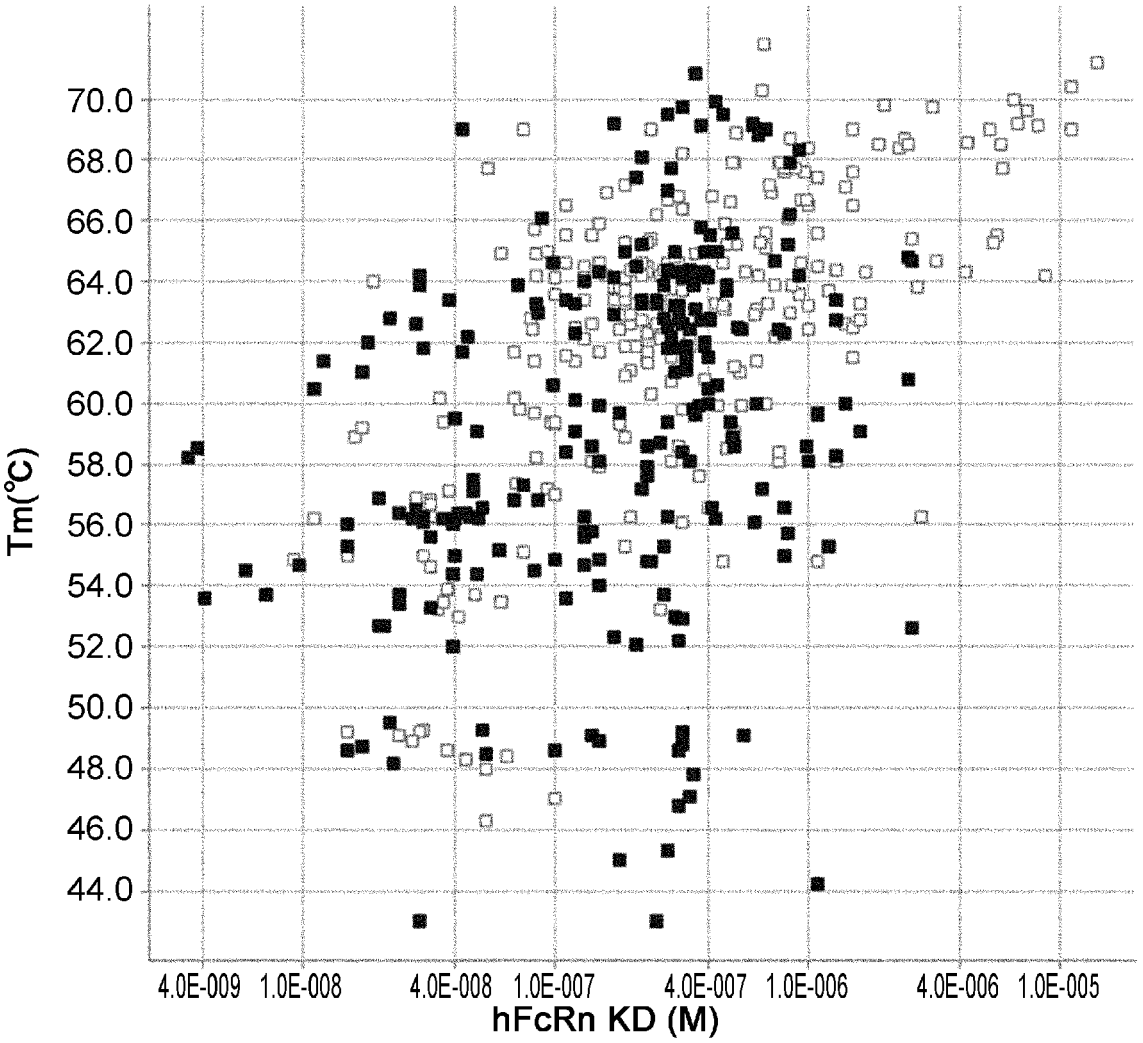
[Fig. 1A]


Conventional antibody
pH-dependent antigen binding antibody with enhanced FcRn binding at neutral pH
Enhance binding to FcRn at neutral pH
pH-dependent antigen binding

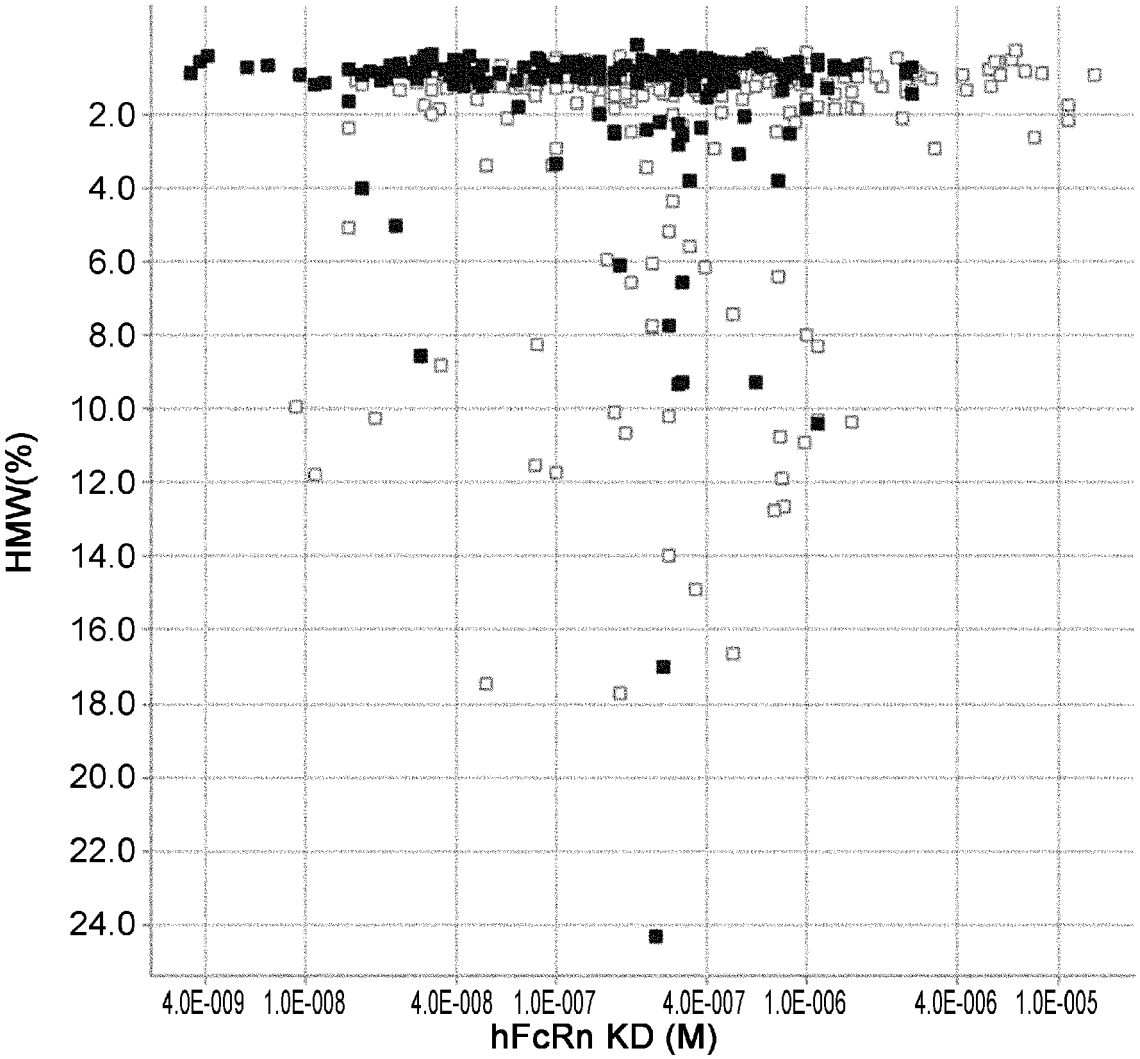
[Fig. 1B]


BLOOD VESSEL
NON-SPECIFIC ENDOCYTOSIS
pH7.4
ENDOTHELIAL CELL
RETURN TO PLASMA
FREE ANTIBODIES BINDING TO OTHER ANTIGENS
ACIDIC ENDOSOME
pH5~6
H+
H+
LYSOSOME
ANTIGEN DEGRADATION
pH5~6
:ANTIBODY :ANTIGEN :FcRn
DISSOCIATION FROM ANTIGEN IN ACIDIC ENDOSOME

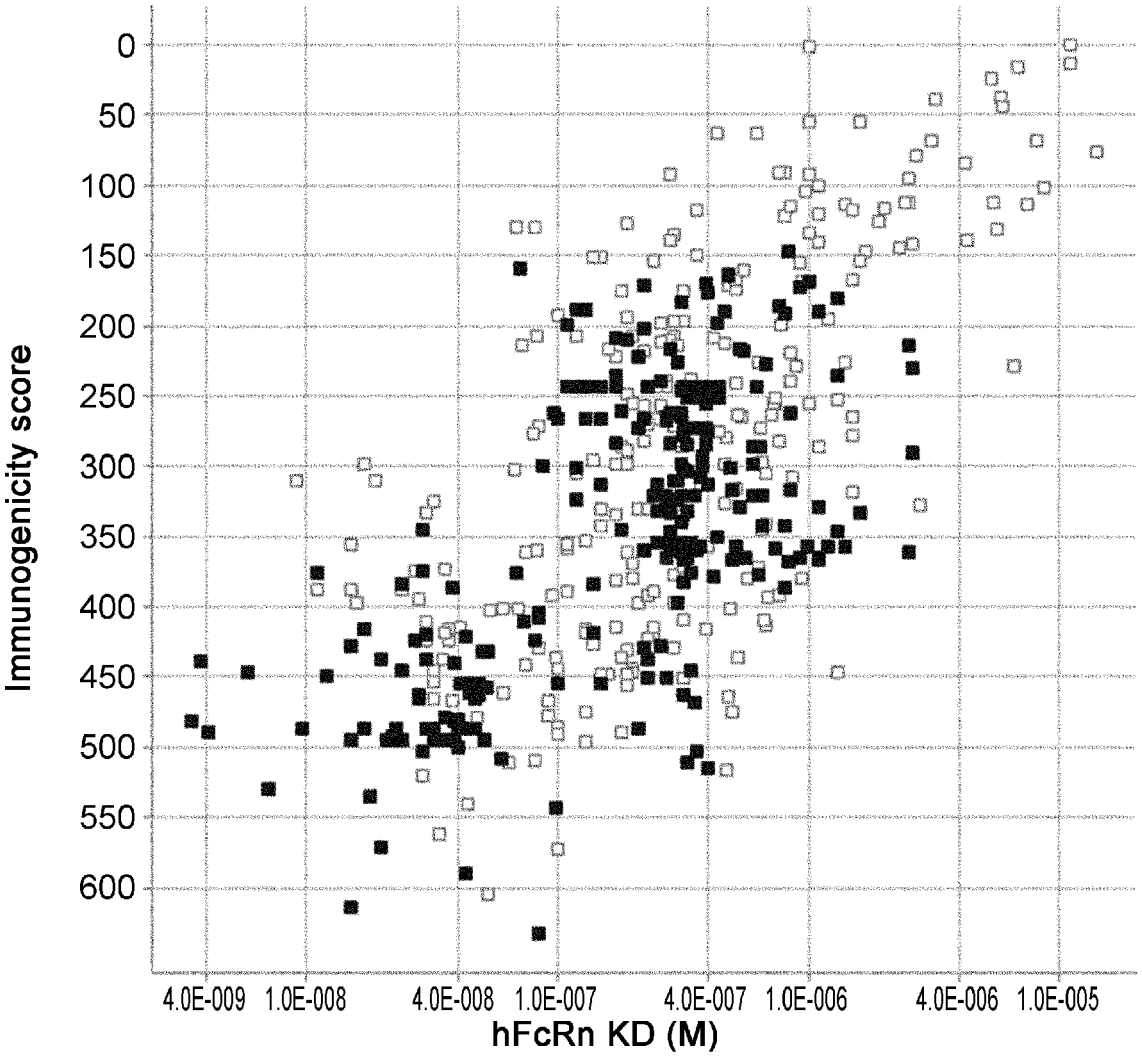
[Fig. 2]


70.0
68.0
66.0
64.0
62.0
60.0
58.0
56.0
54.0
52.0
50.0
48.0
46.0
44.0
Tm(°C)
4.0E-009
1.0E-008
4.0E-008
1.0E-007
4.0E-007
1.0E-006
4.0E-006
1.0E-005
hFcRn KD (M)

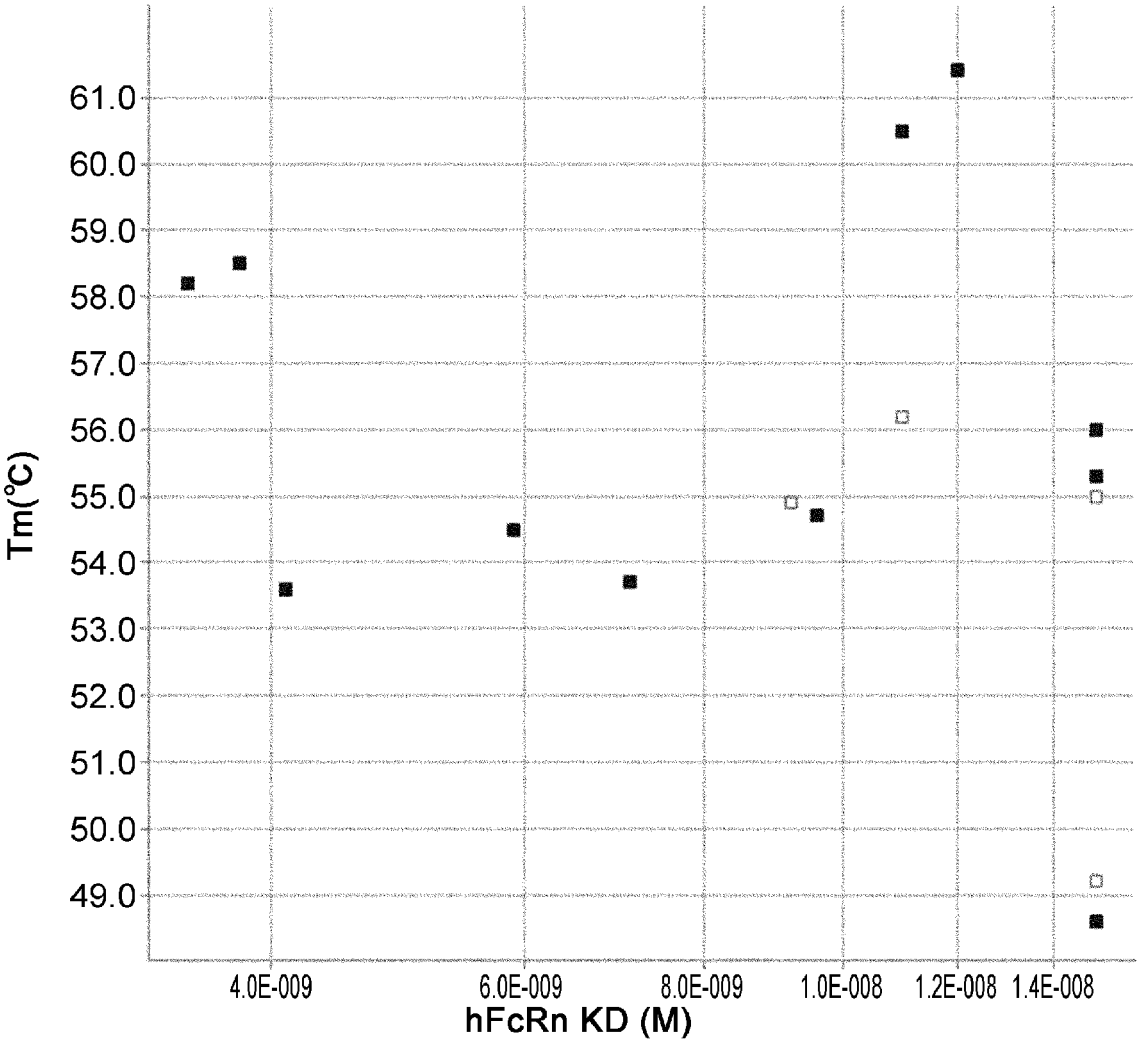
[Fig. 3]


HMW(%)
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
4.0E-009
1.0E-008
4.0E-008
1.0E-007
4.0E-007
1.0E-006
4.0E-006
1.0E-005
hFcRn KD (M)

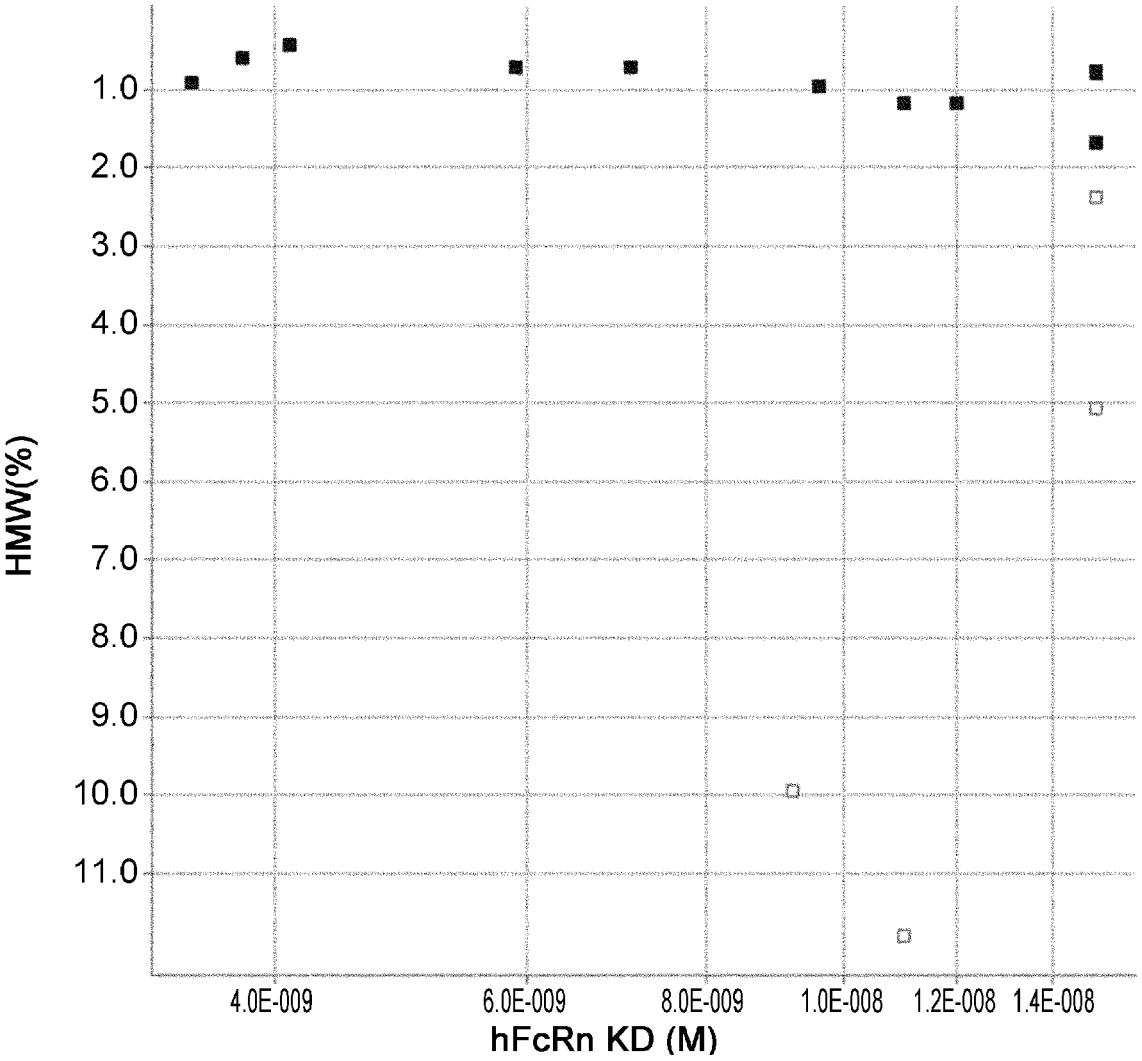
[Fig. 4]


Immunogenicity score
0
50
100
150
200
250
300
350
400
450
500
550
600
4.0E-009
1.0E-008
4.0E-008
1.0E-007
4.0E-007
1.0E-006
4.0E-006
1.0E-005
hFcRn KD (M)

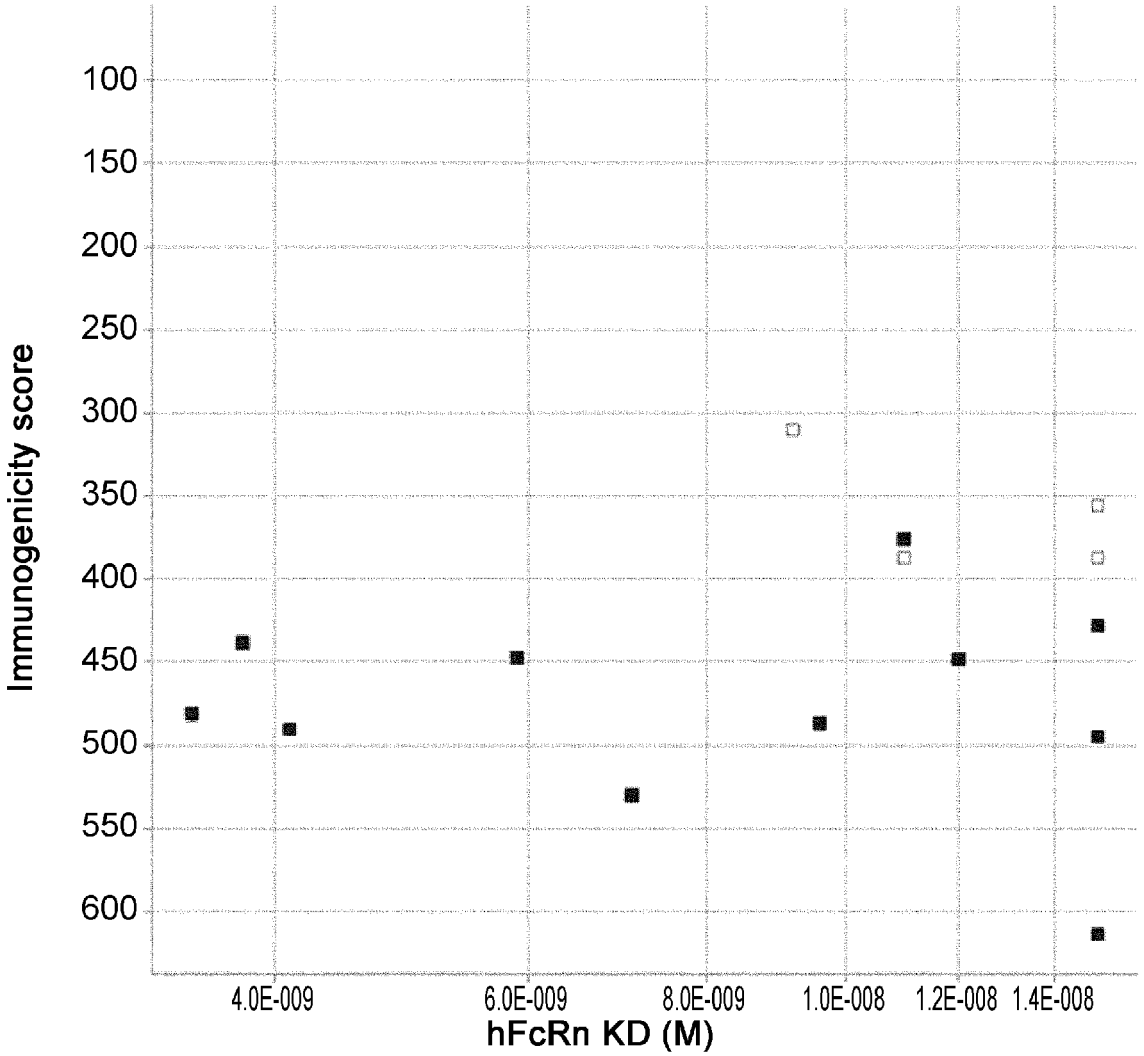
[Fig. 5]


61.0
60.0
59.0
58.0
57.0
56.0
55.0
54.0
53.0
52.0
51.0
50.0
49.0
Tm(°C)
4.0E-009
6.0E-009
8.0E-009
1.0E-008
1.2E-008
1.4E-008
hFcRn KD (M)

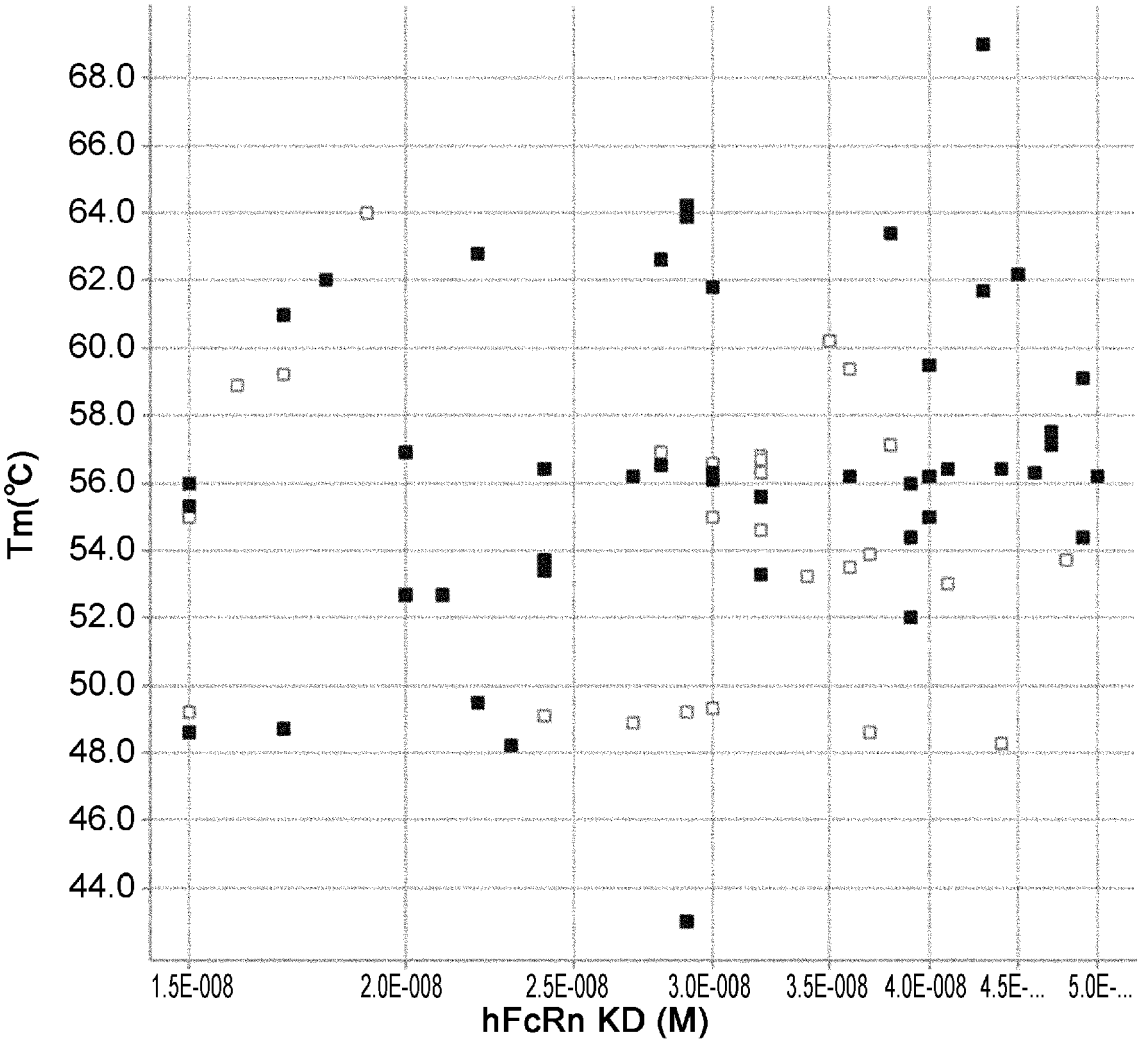
[Fig. 6]


HMW(%)
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
11.0
4.0E-009
6.0E-009
8.0E-009
1.0E-008
1.2E-008
1.4E-008
hFcRn KD (M)

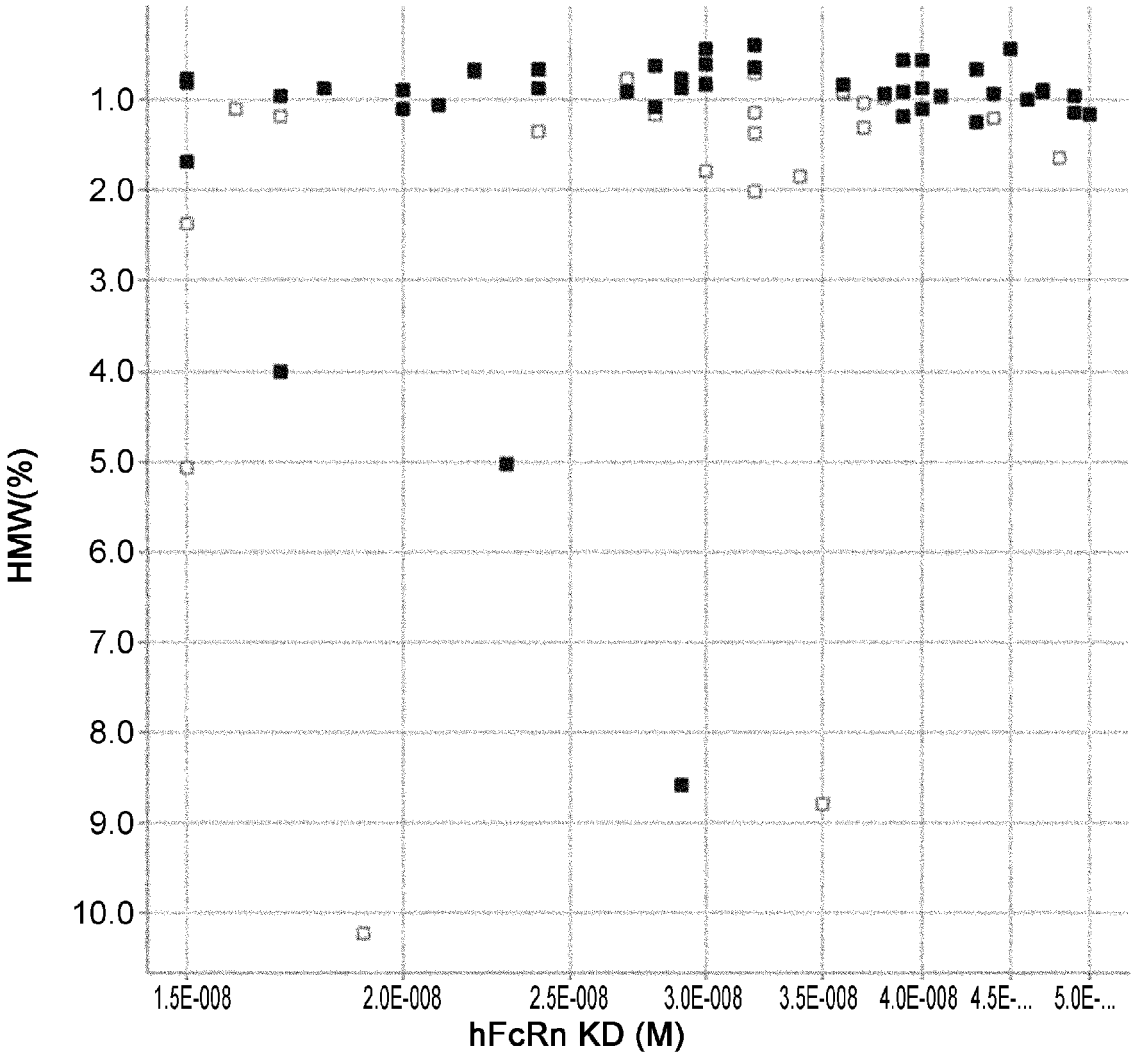
[Fig. 7]


Immunogenicity score
100
150
200
250
300
350
400
450
500
550
600
4.0E-009
6.0E-009
8.0E-009
1.0E-008
1.2E-008
1.4E-008
hFcRn KD (M)

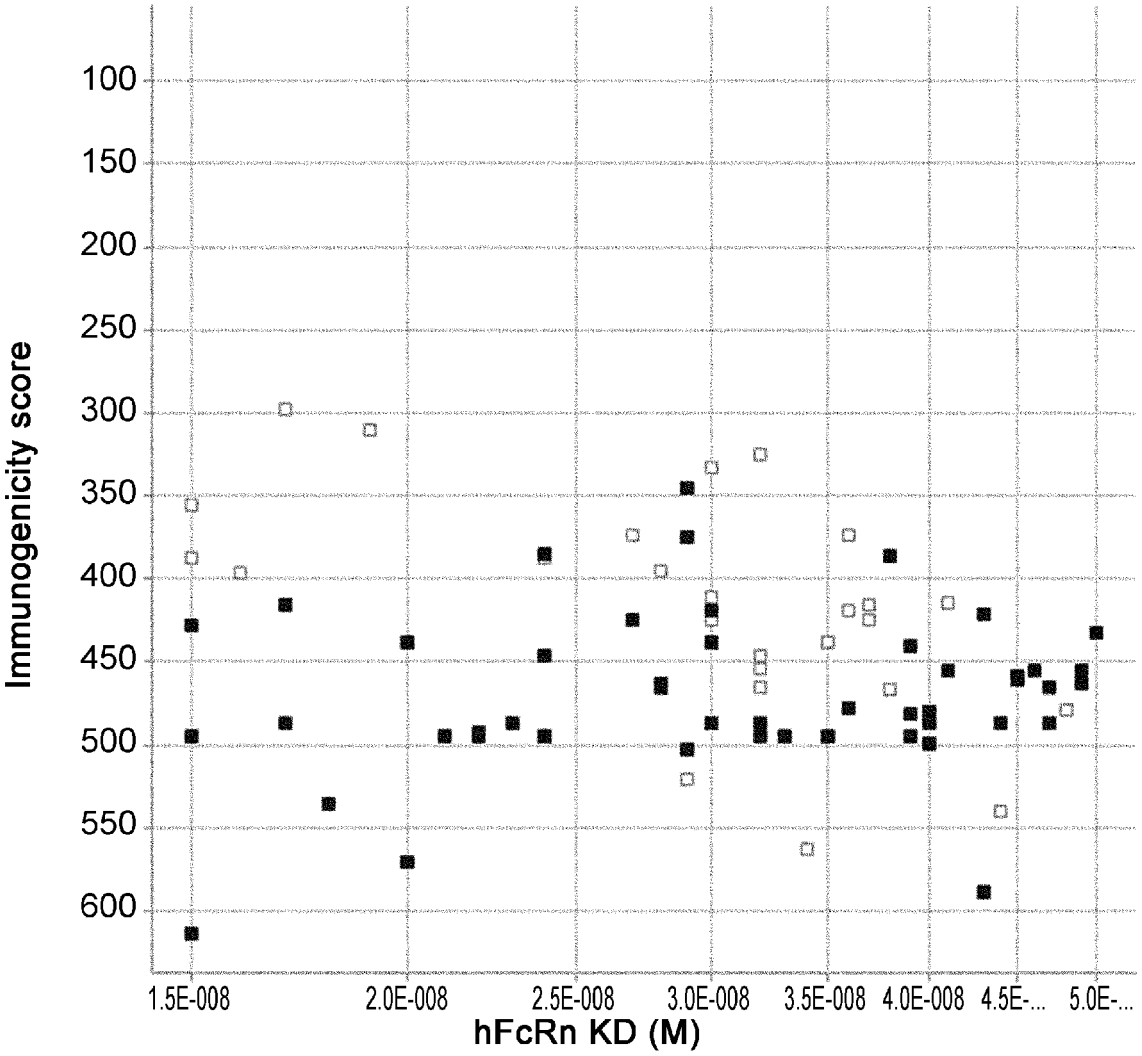
[Fig. 8]


68.0
66.0
64.0
62.0
60.0
58.0
56.0
54.0
52.0
50.0
48.0
46.0
44.0
Tm(℃)
1.5E-008
2.0E-008
2.5E-008
3.0E-008
3.5E-008
4.0E-008
4.5E-...
5.0E-...
hFcRn KD (M)

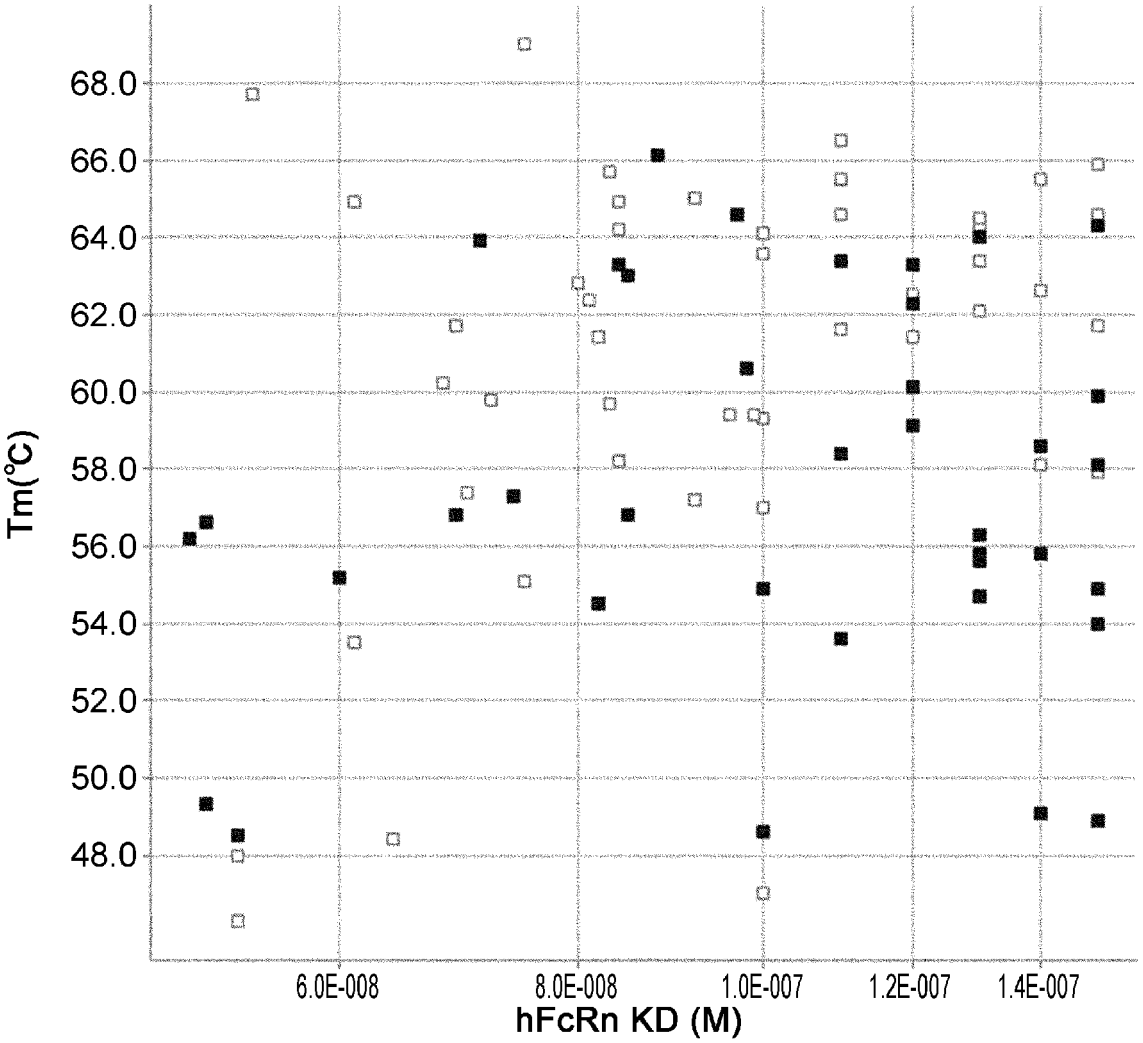
[Fig. 9]


HMW(%)
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
1.5E-008
2.0E-008
2.5E-008
3.0E-008
3.5E-008
4.0E-008
4.5E-...
5.0E-...
hFcRn KD (M)

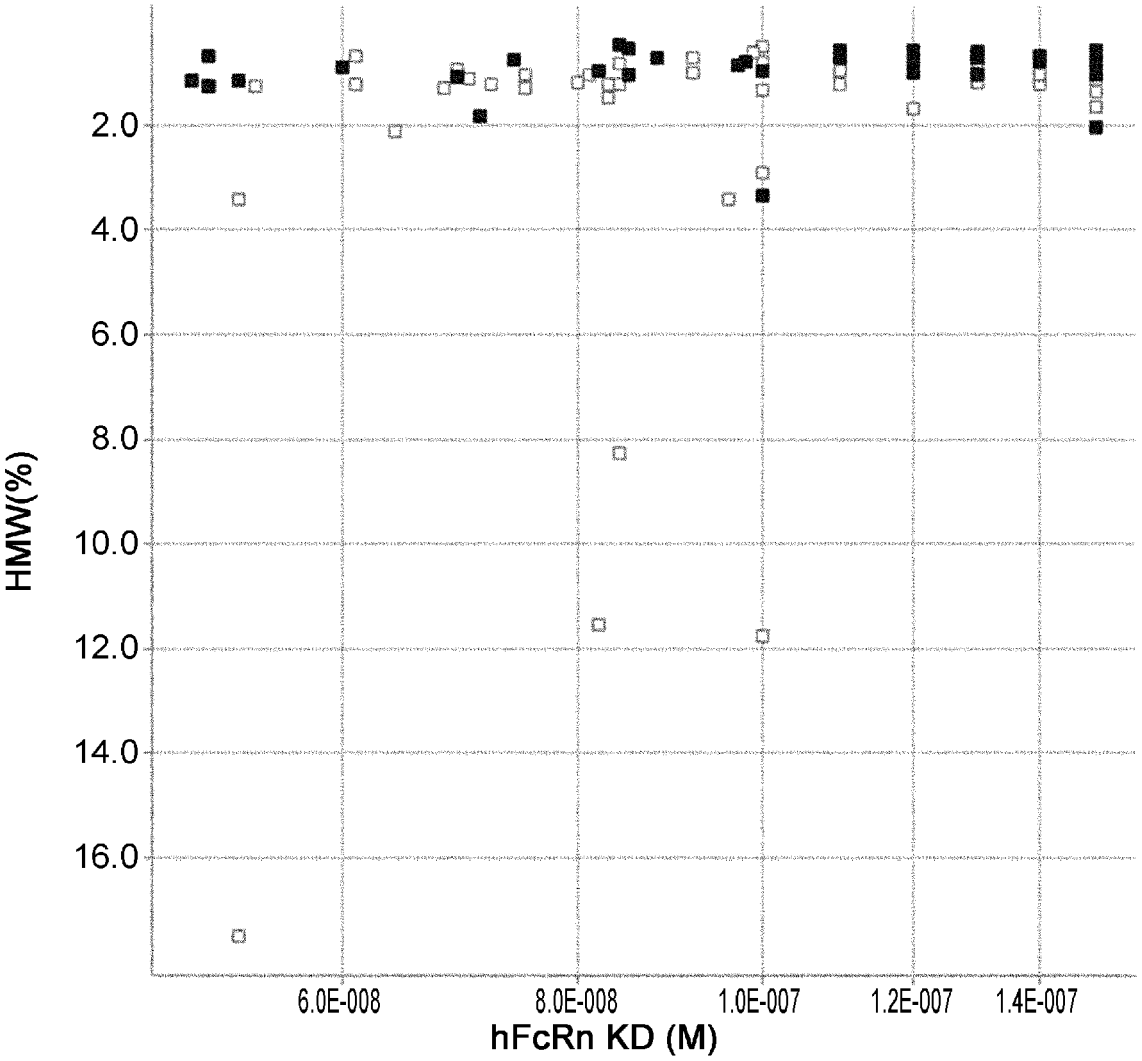
[Fig. 10]


Immunogenicity score
100
150
200
250
300
350
400
450
500
550
600
1.5E-008
2.0E-008
2.5E-008
3.0E-008
3.5E-008
4.0E-008
4.5E-...
5.0E-...
hFcRn KD (M)

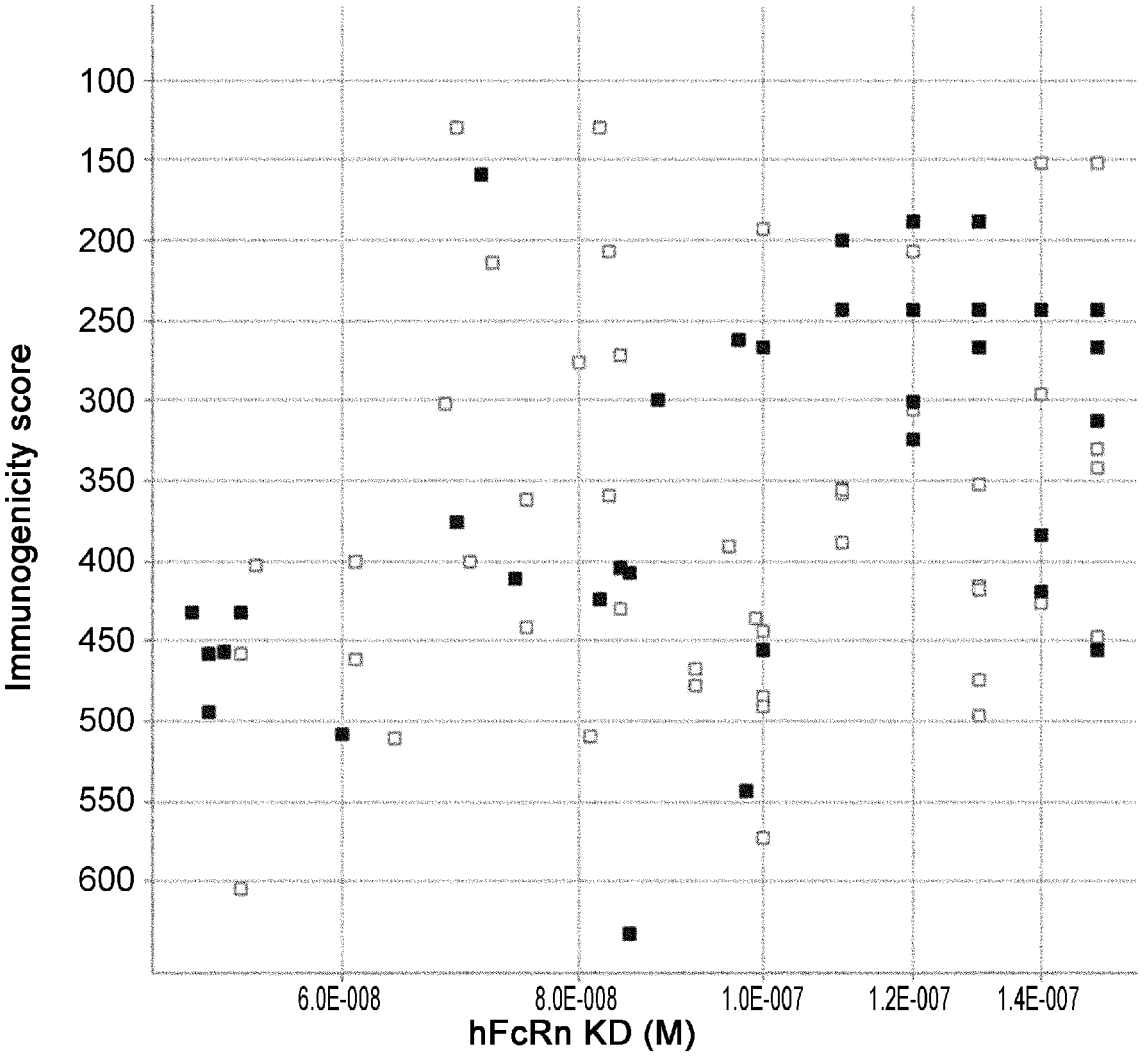
[Fig. 11]


68.0
66.0
64.0
62.0
60.0
58.0
56.0
54.0
52.0
50.0
48.0
Tm(°C)
6.0E-008
8.0E-008
1.0E-007
1.2E-007
1.4E-007
hFcRn KD (M)

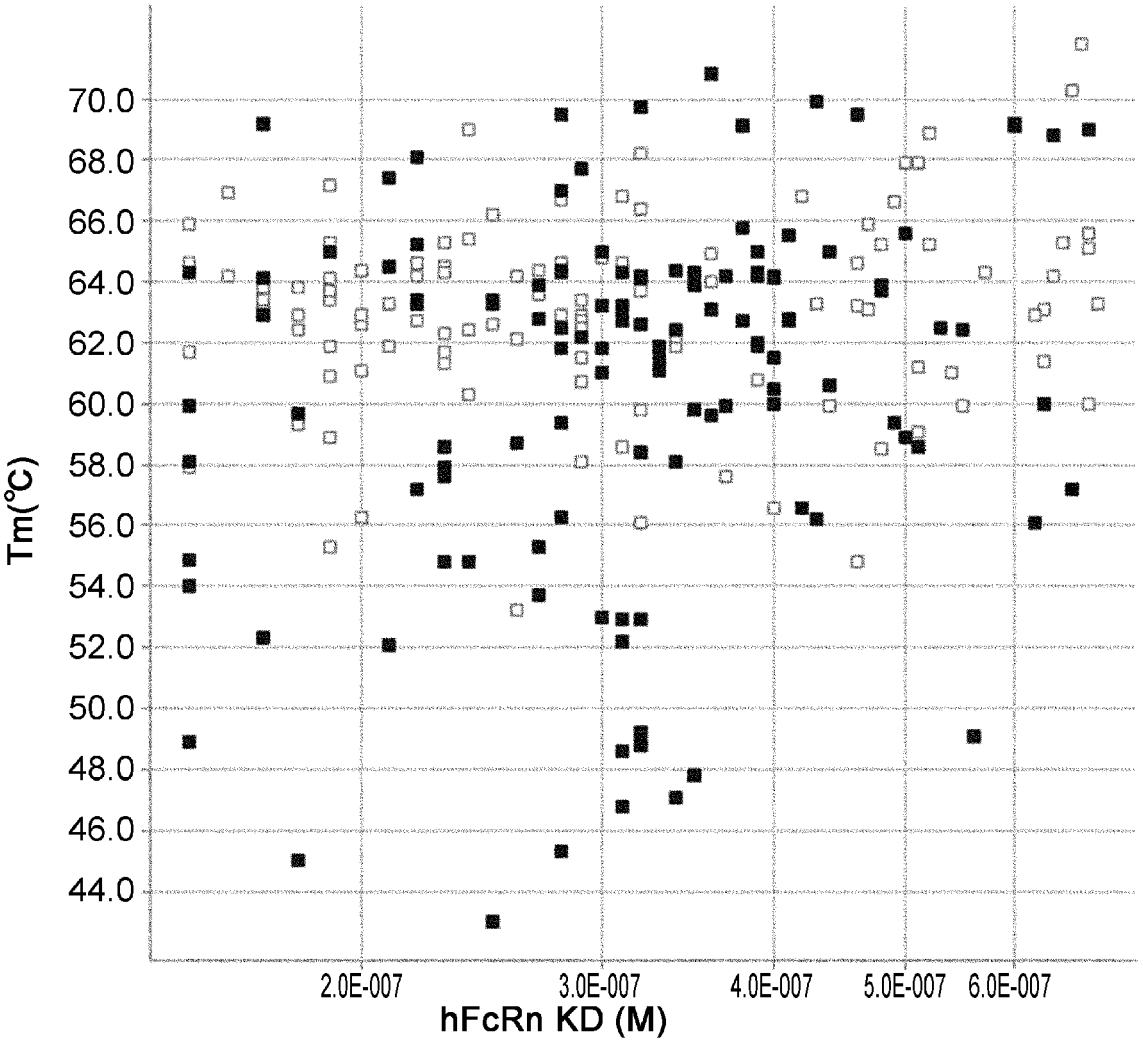
[Fig. 12]


HMW(%)
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
6.0E-008
8.0E-008
1.0E-007
1.2E-007
1.4E-007
hFcRn KD (M)

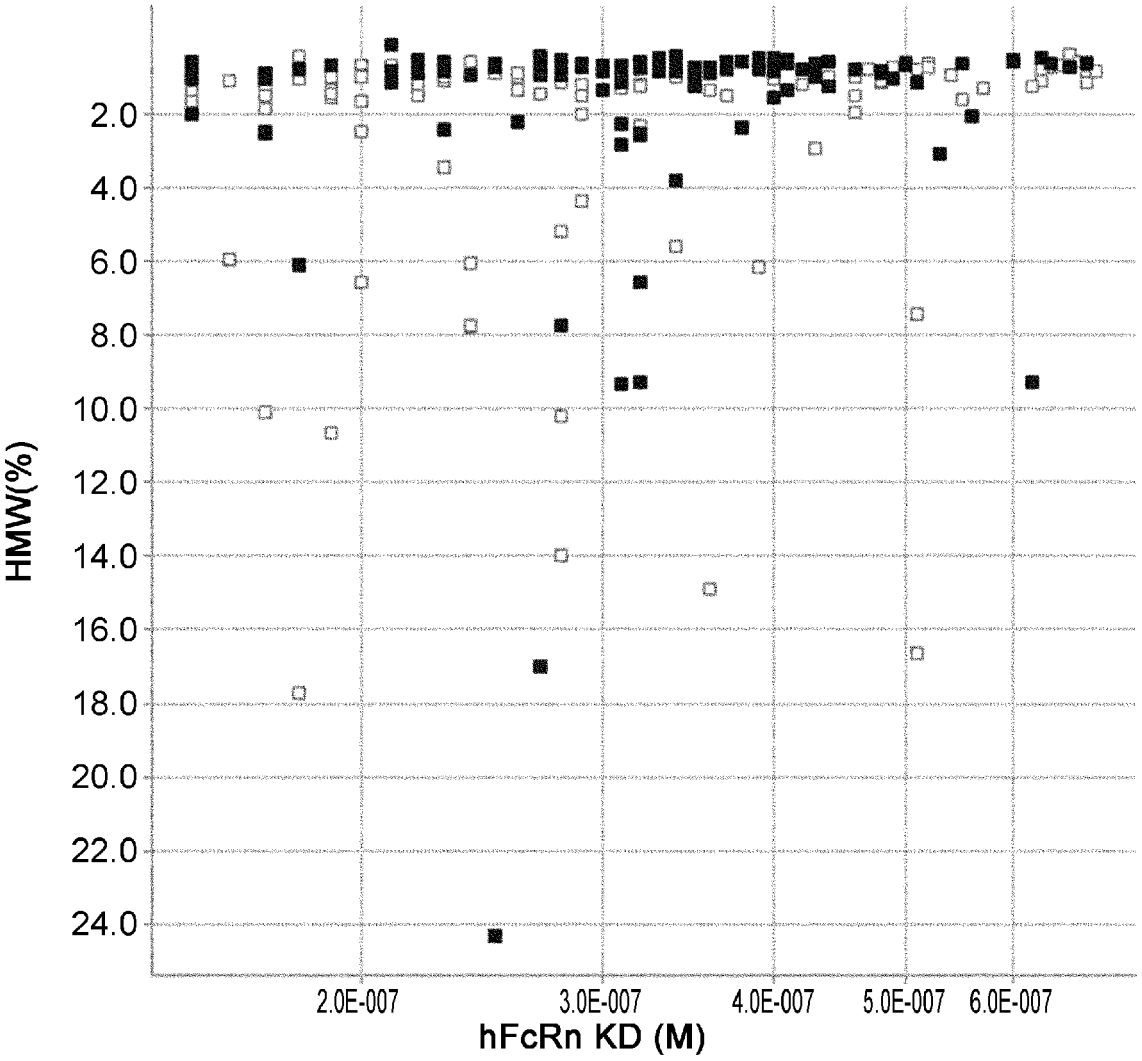
[Fig. 13]


Immunogenicity score
100
150
200
250
300
350
400
450
500
550
600
6.0E-008
8.0E-008
1.0E-007
1.2E-007
1.4E-007
hFcRn KD (M)

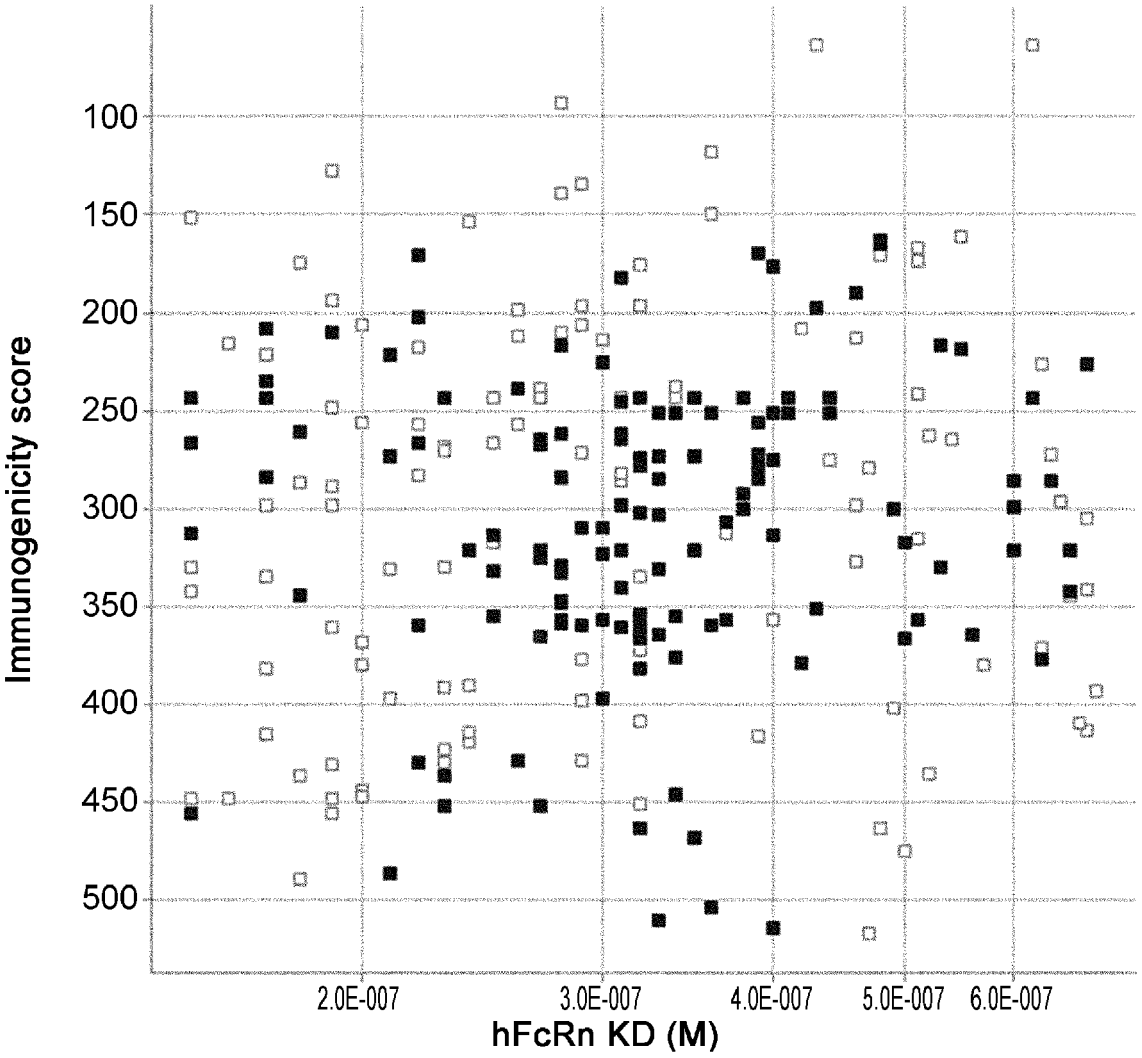
[Fig. 14]


70.0
68.0
66.0
64.0
62.0
60.0
58.0
56.0
54.0
52.0
50.0
48.0
46.0
44.0
Tm(℃)
2.0E-007
3.0E-007
4.0E-007
5.0E-007
6.0E-007
hFcRn KD (M)

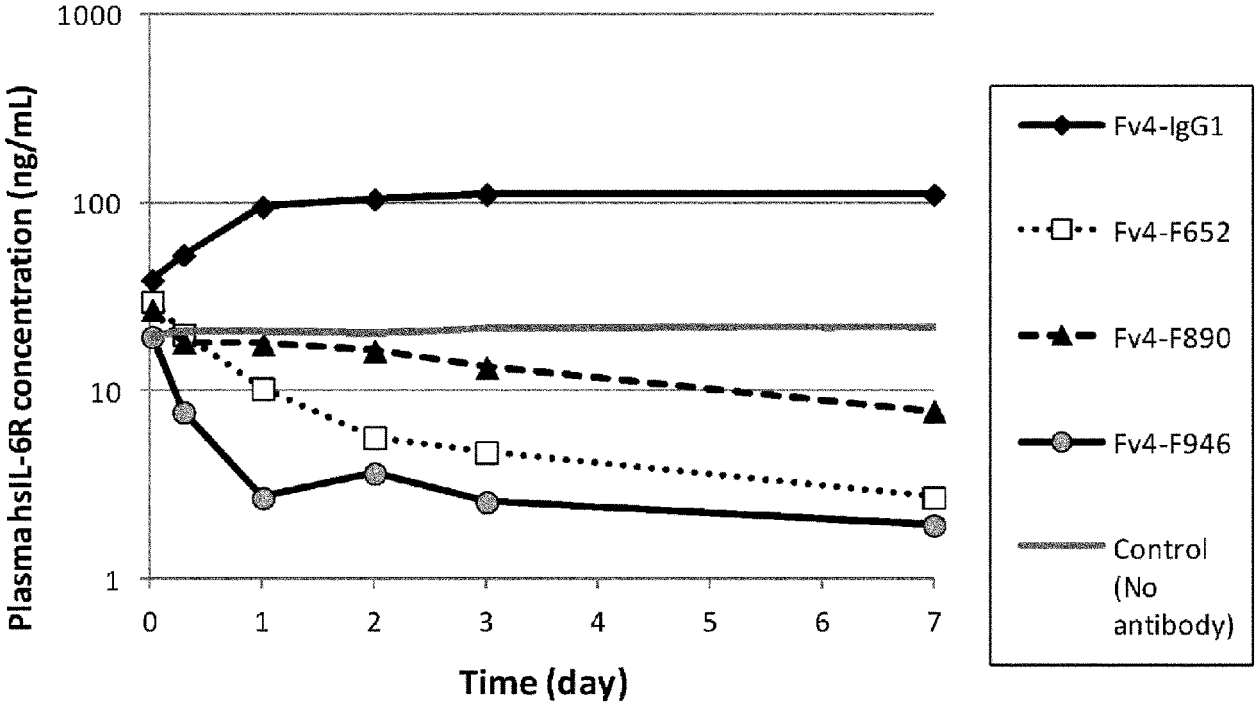
[Fig. 15]


HMW(%)
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
2.0E-007
3.0E-007
4.0E-007
5.0E-007
6.0E-007
hFcRn KD (M)

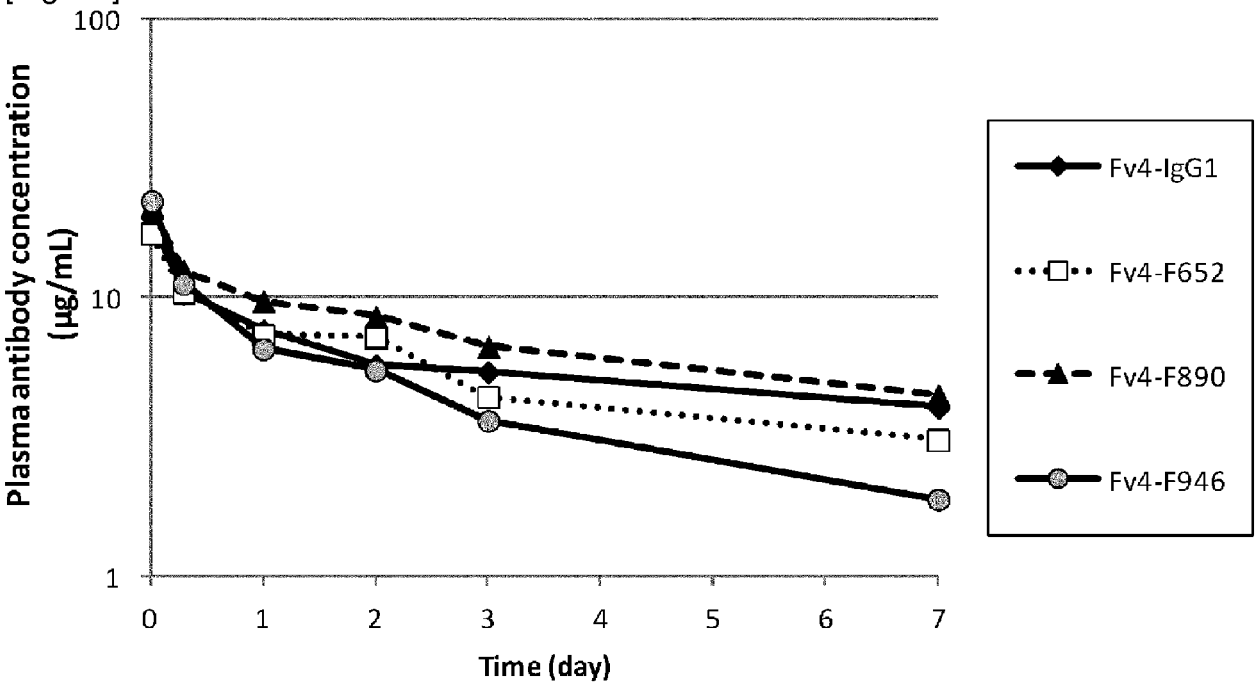
[Fig. 16]


Immunogenicity score
100
150
200
250
300
350
400
450
500
2.0E-007
3.0E-007
4.0E-007
5.0E-007
6.0E-007
hFcRn KD (M)

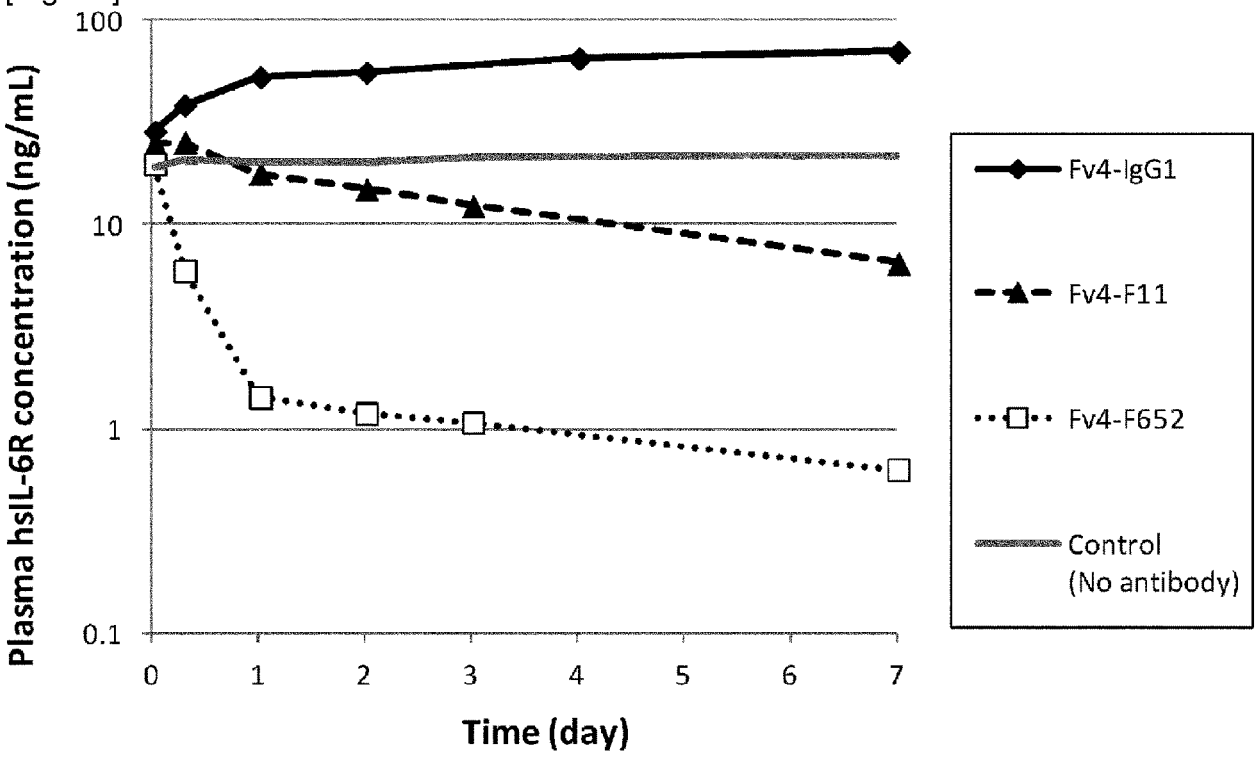
[Fig. 17]


Plasma hsIL-6R concentration (ng/mL)
1000
100
10
1
0
1
2
3
4
5
6
7
Time (day)
Fv4-IgG1
Fv4-F652
Fv4-F890
Fv4-F946
Control (No antibody)

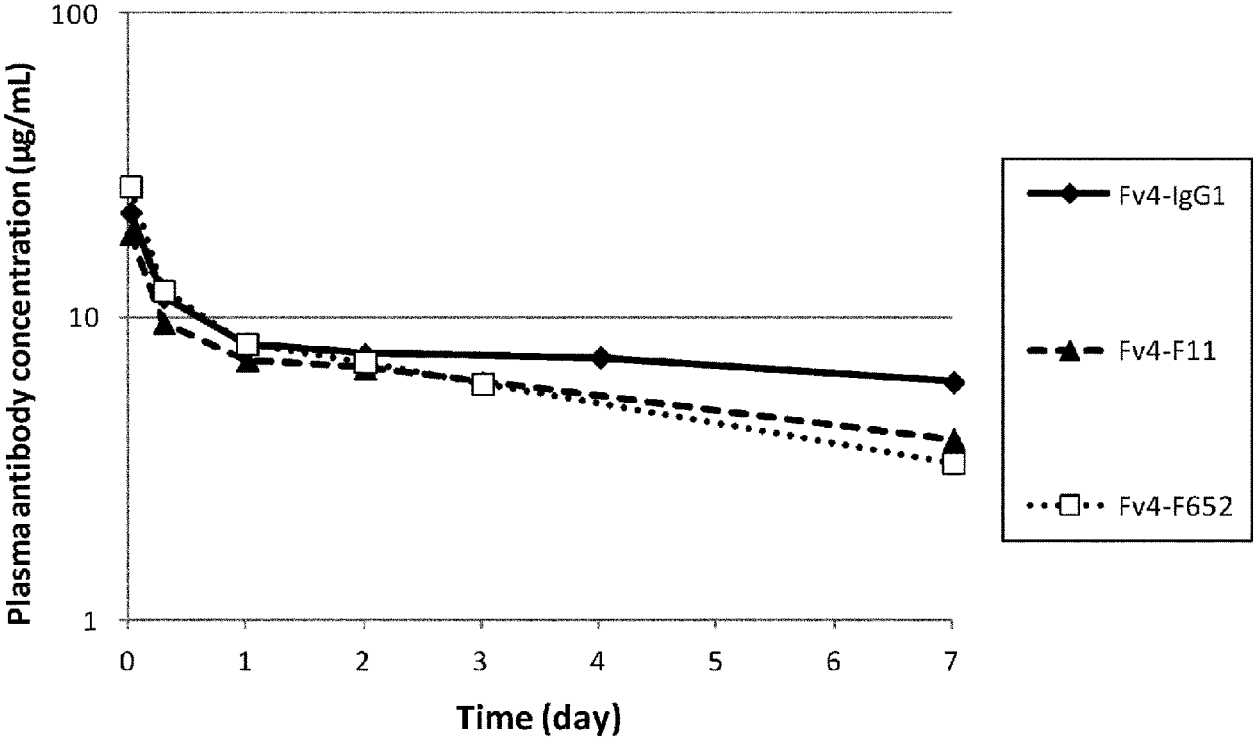
[Fig. 18]


Plasma antibody concentration (μg/mL)
100
10
1
0
1
2
3
4
5
6
7
Time (day)
Fv4-IgG1
Fv4-F652
Fv4-F890
Fv4-F946

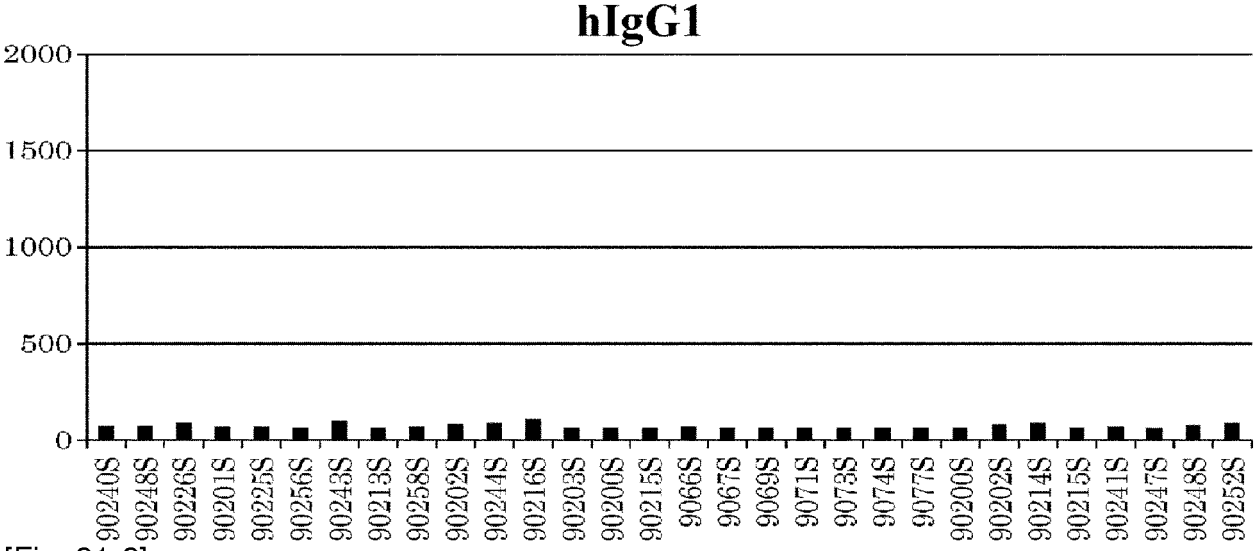
[Fig. 19]


Plasma hsIL-6R concentration (ng/mL)
100
10
1
0.1
0
1
2
3
4
5
6
7
Time (day)
Fv4-IgG1
Fv4-F11
Fv4-F652
Control
(No antibody)

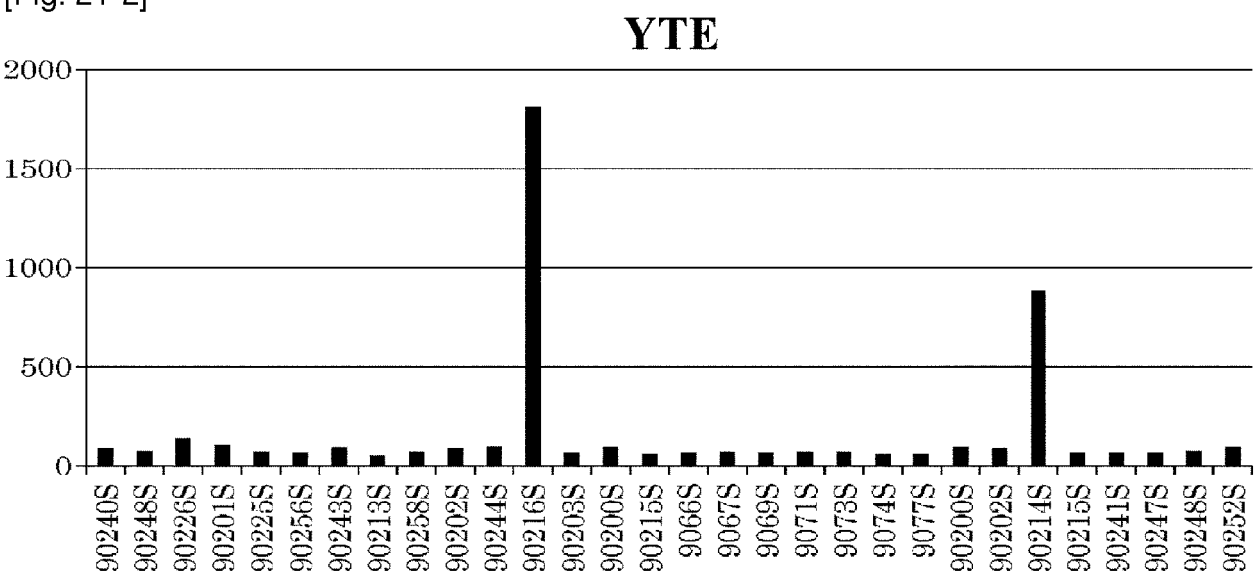
[Fig. 20]



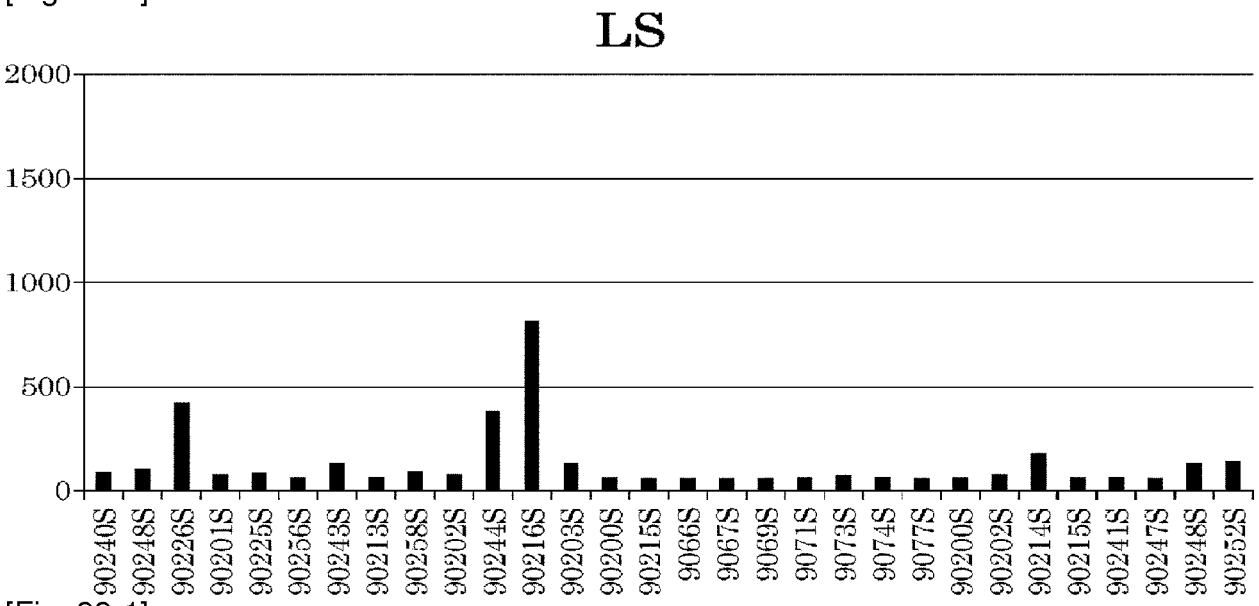
[Fig. 21-1]



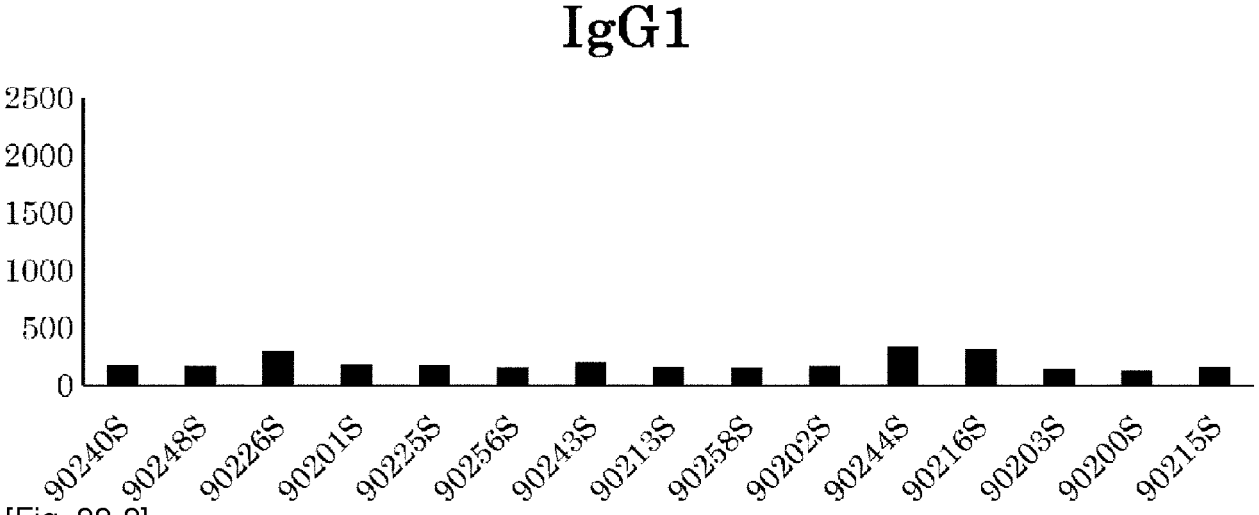
[Fig. 21-2]



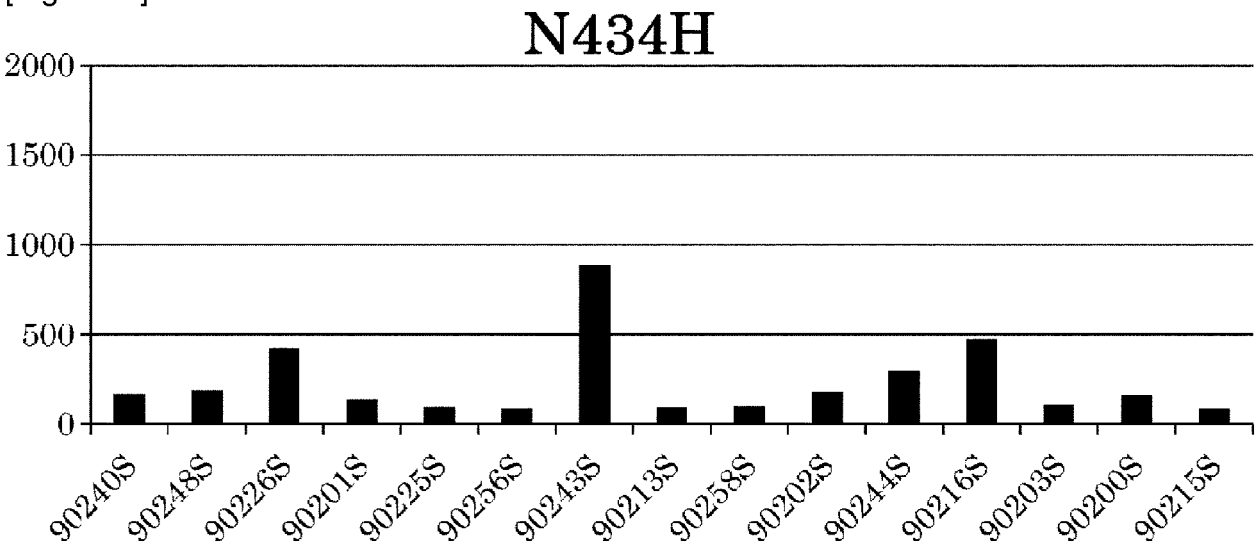
[Fig. 21-3]



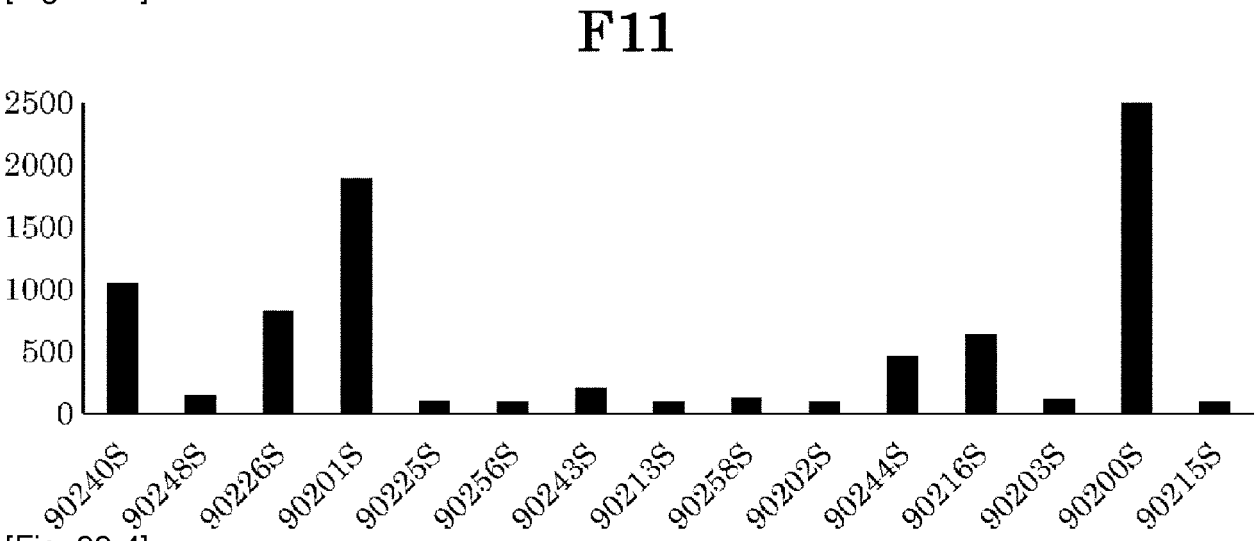
[Fig. 22-1]



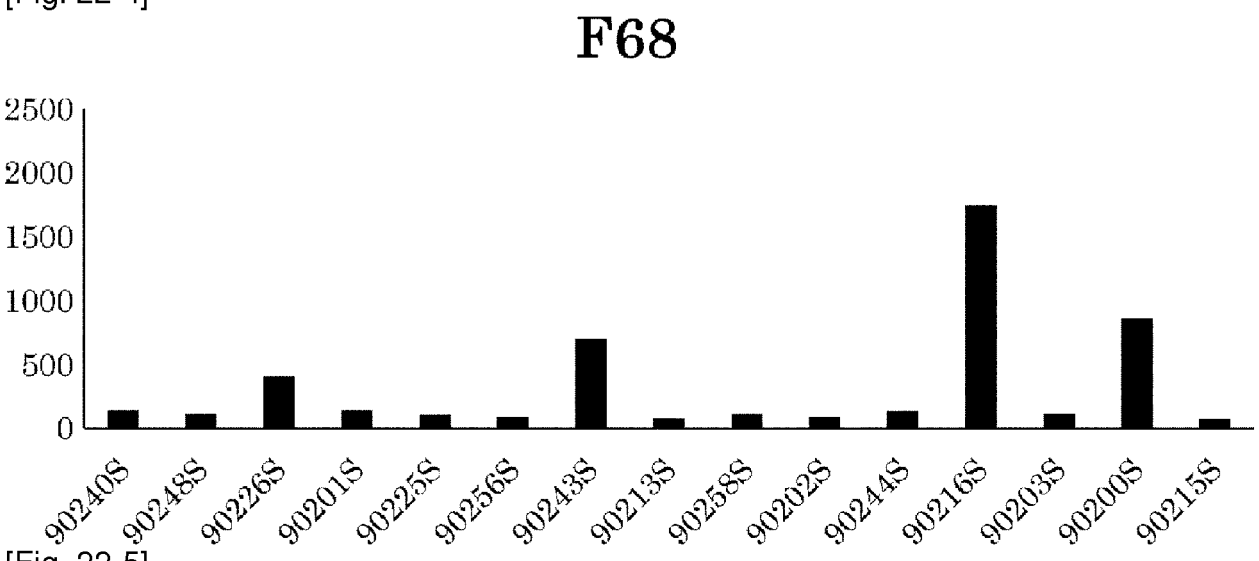
[Fig. 22-2]



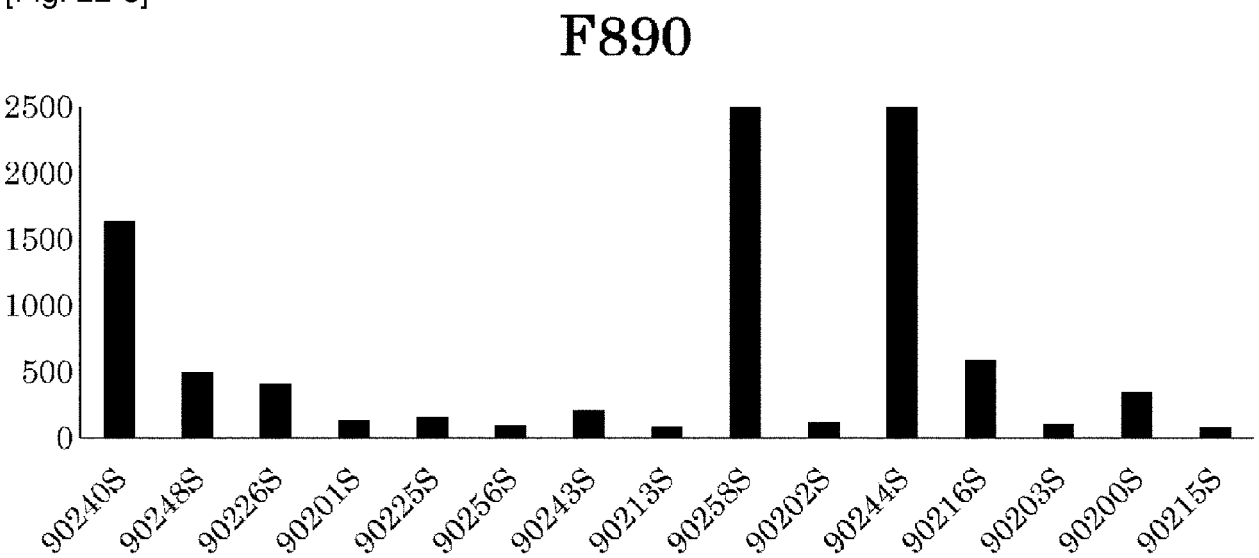
[Fig. 22-3]



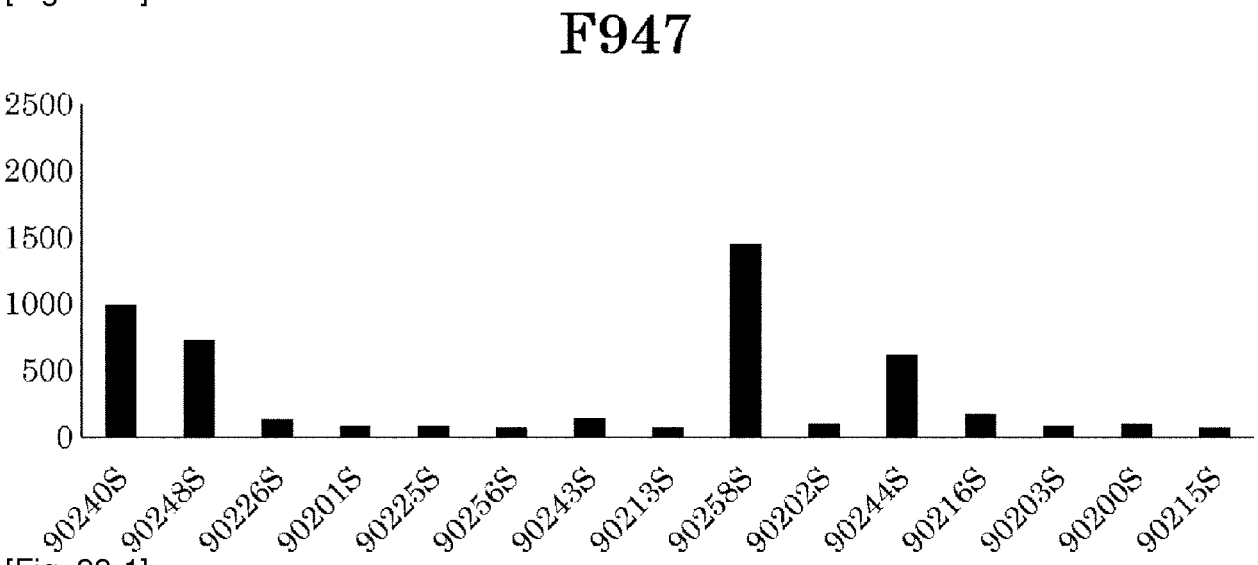
[Fig. 22-4]



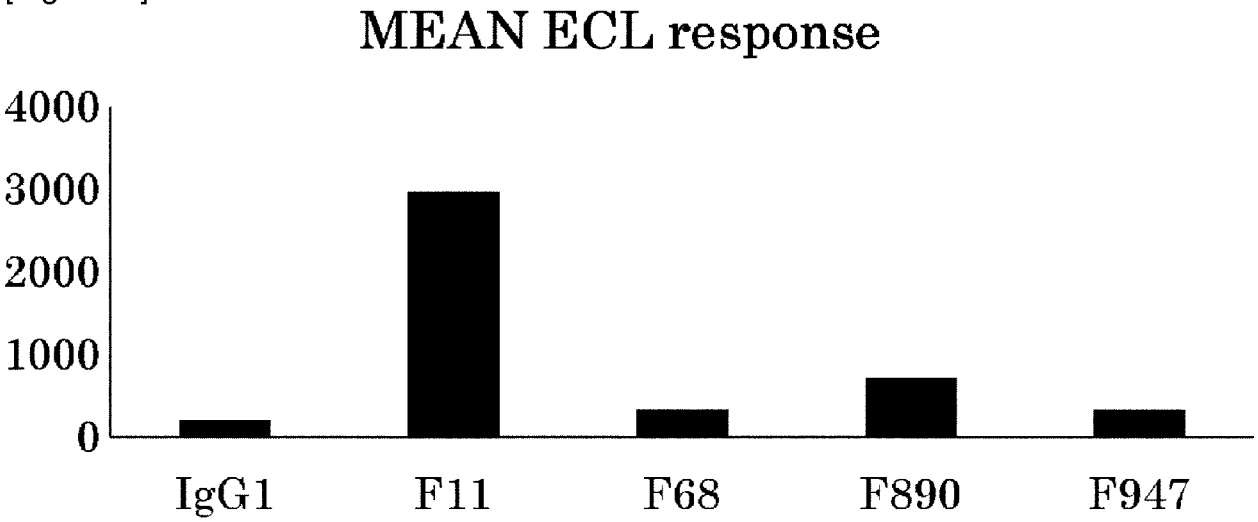
[Fig. 22-5]



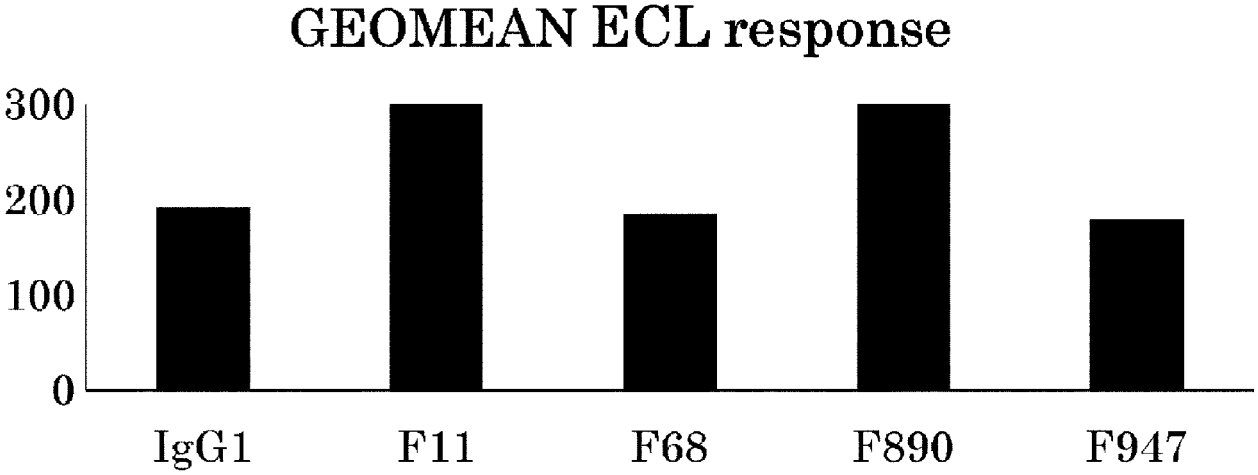
[Fig. 22-6]



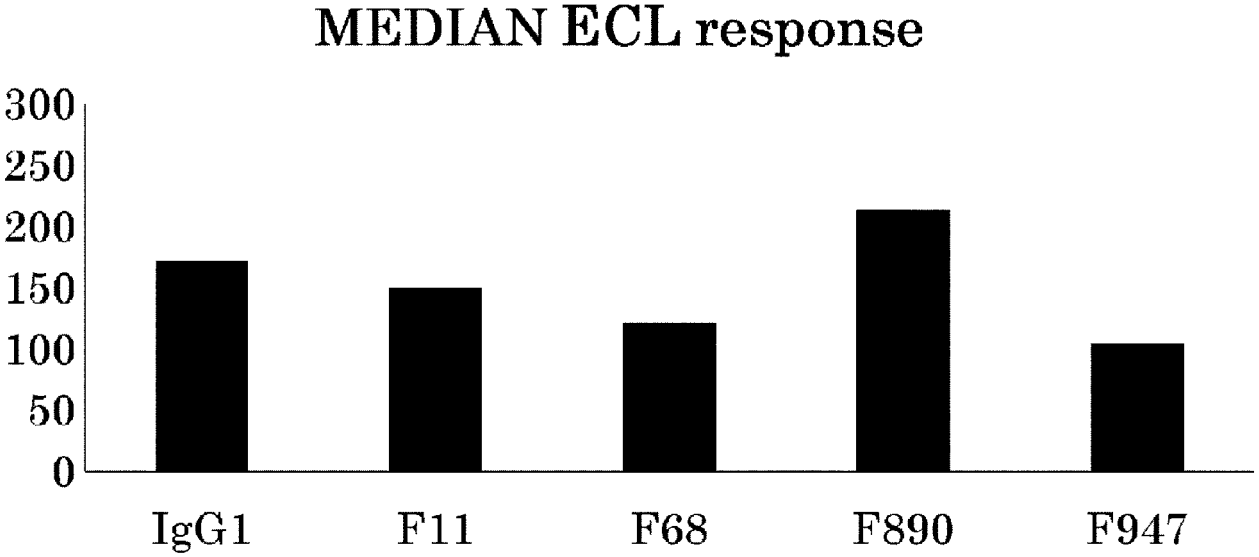
[Fig. 23-1]



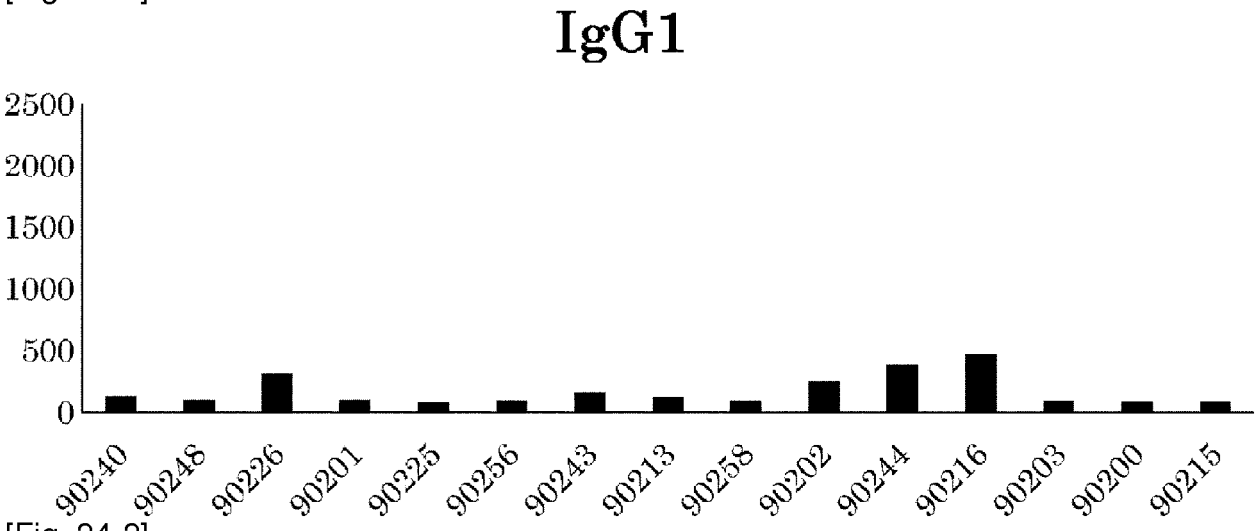
[Fig. 23-2]



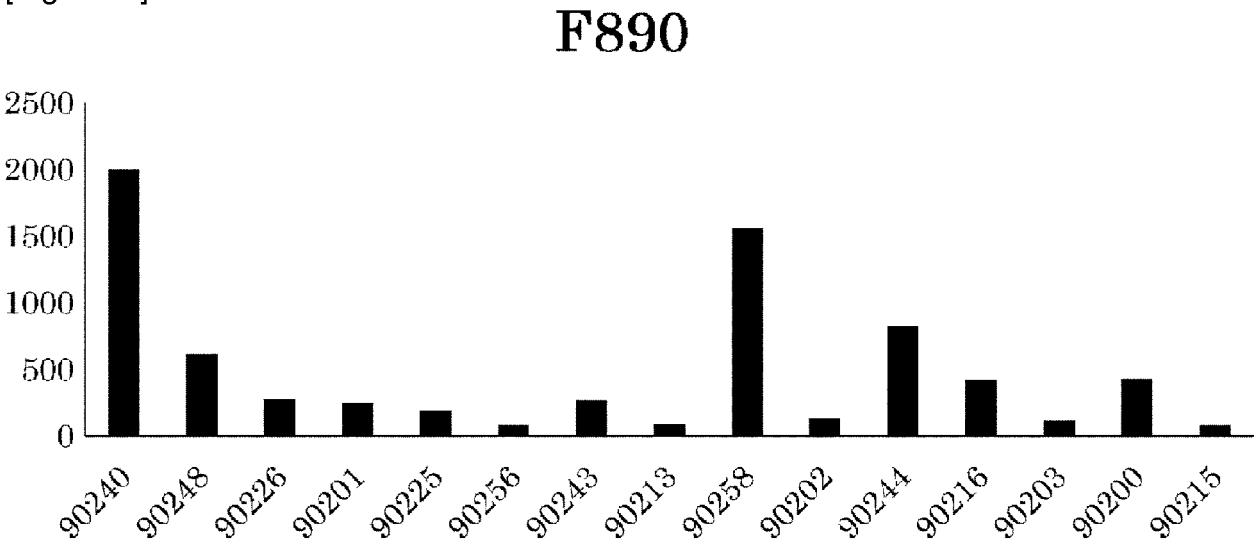
[Fig. 23-3]



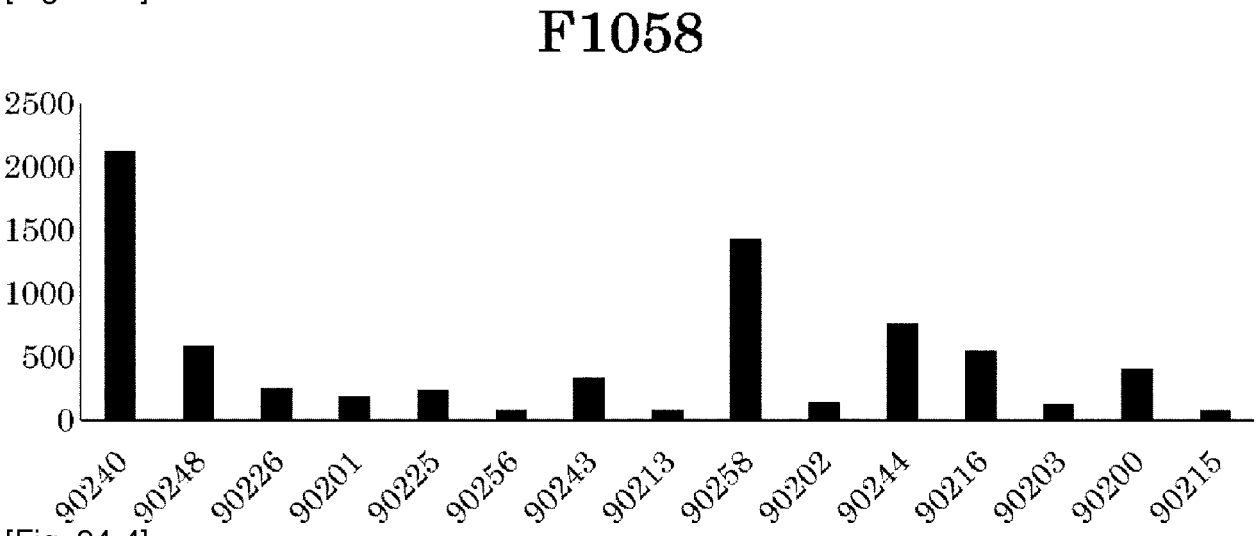
[Fig. 24-1]



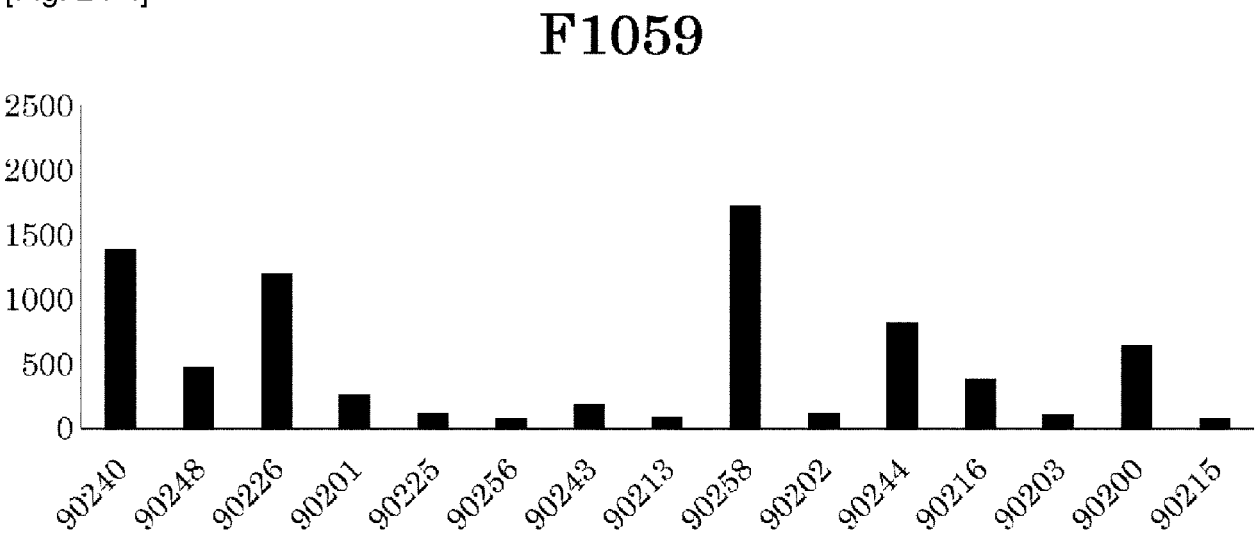
[Fig. 24-2]



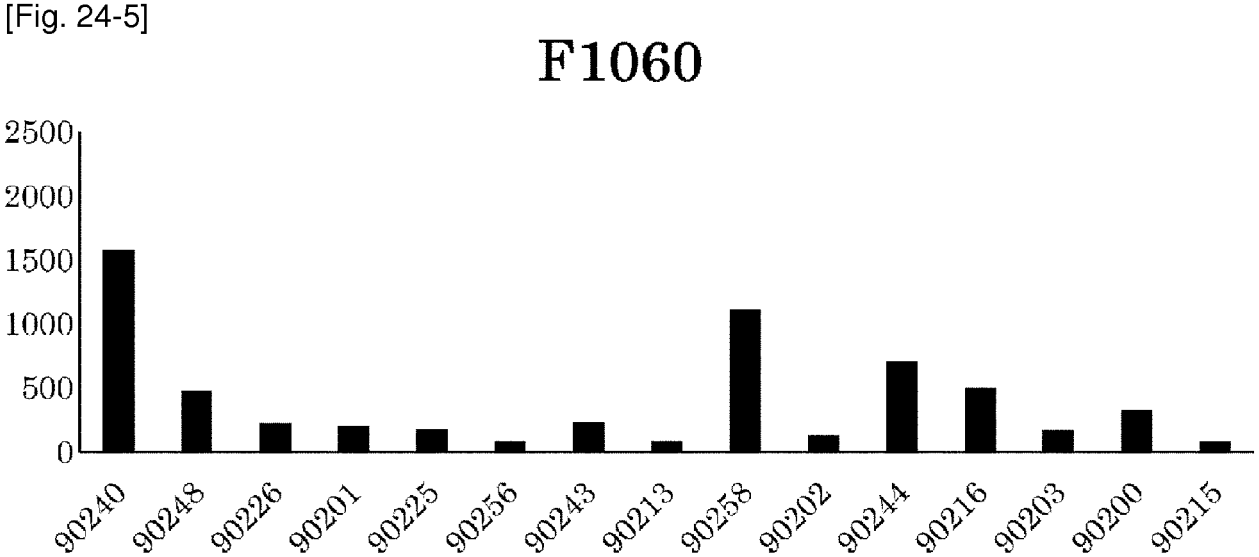
[Fig. 24-3]



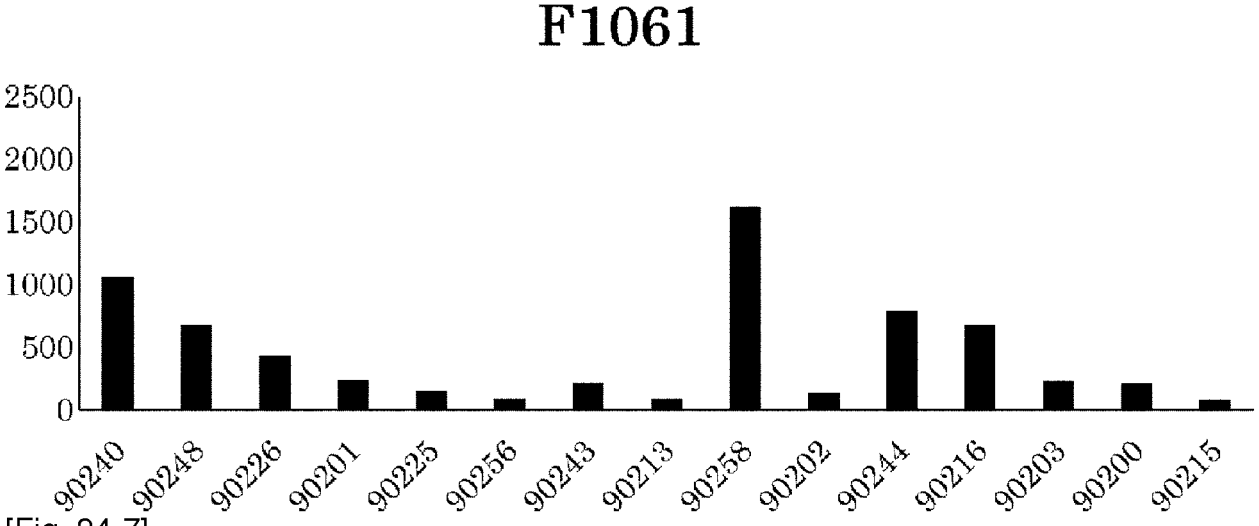
[Fig. 24-4]



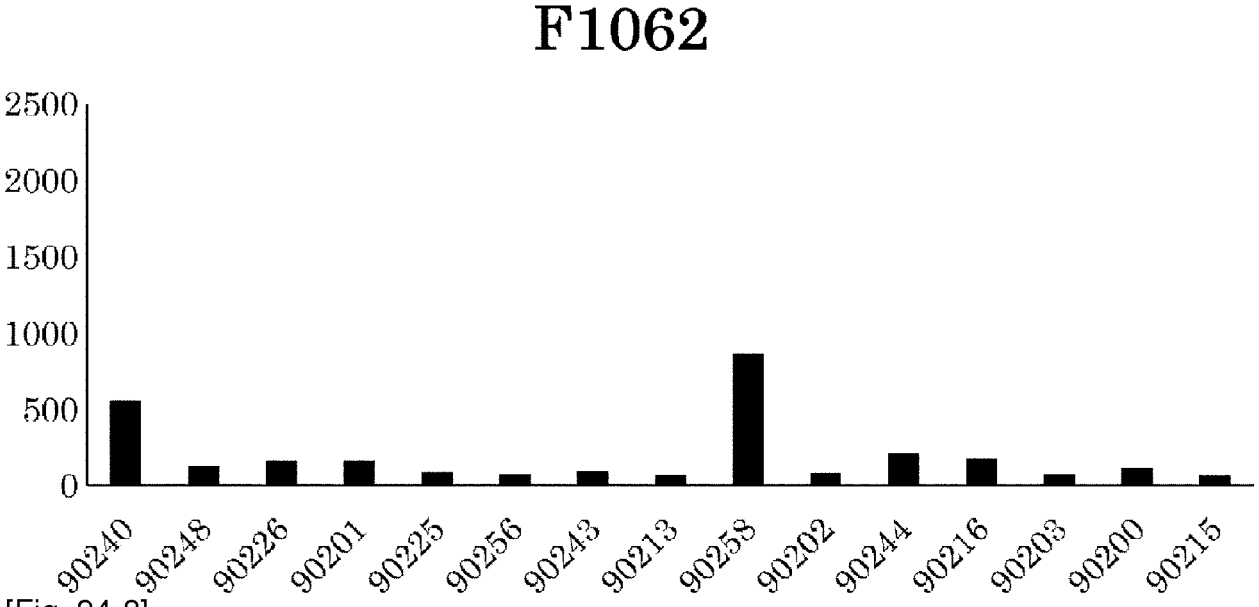
[Fig. 24-5]



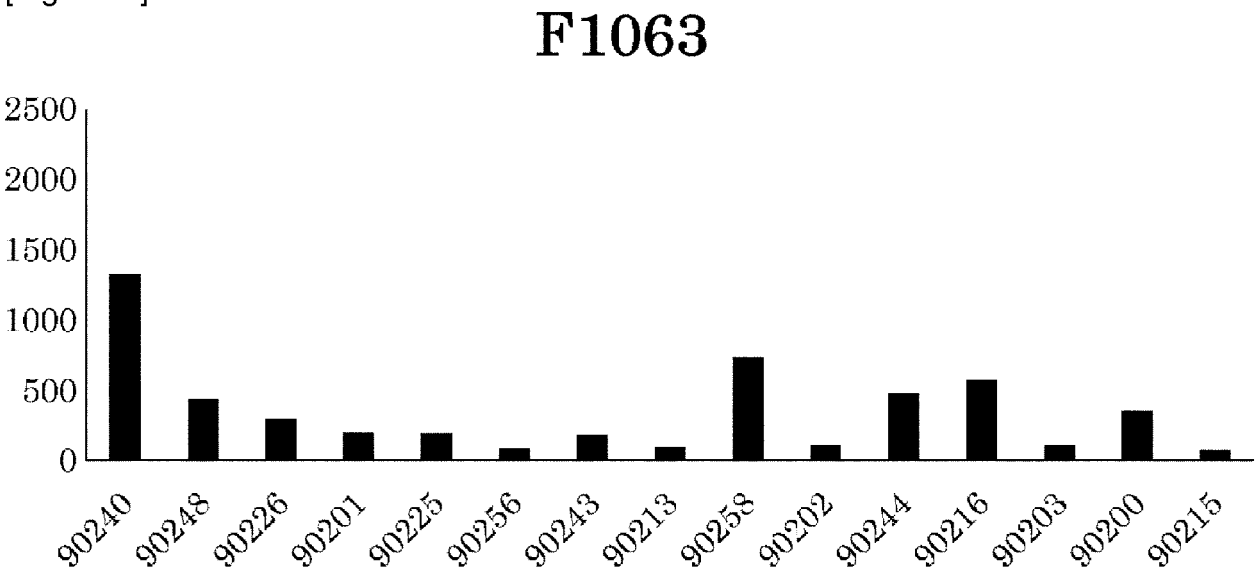
[Fig. 24-6]



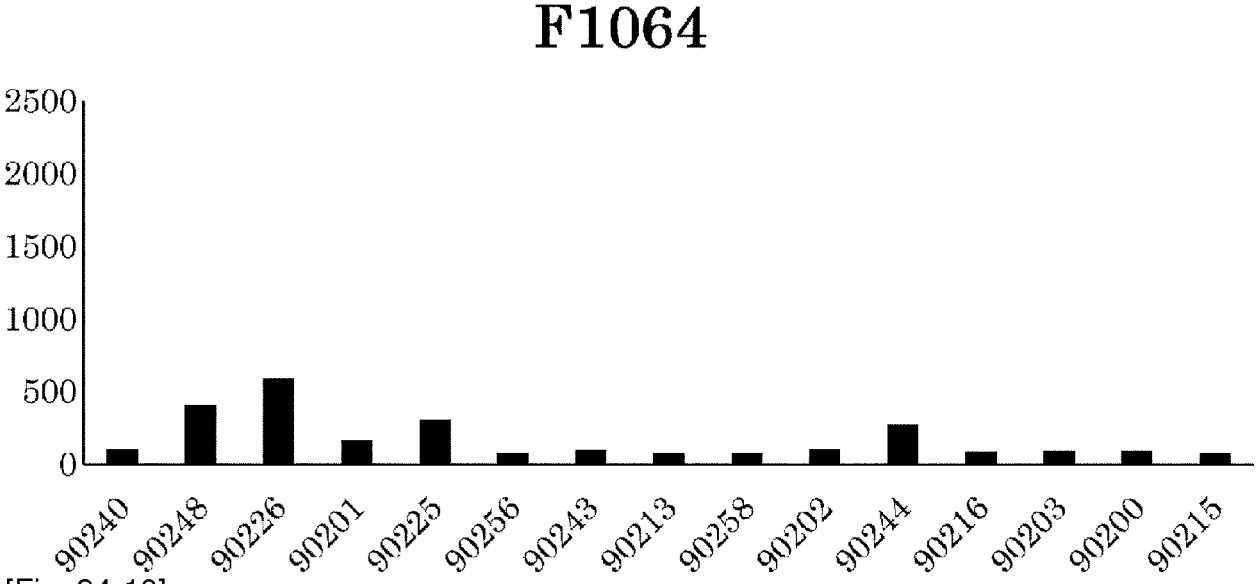
[Fig. 24-7]



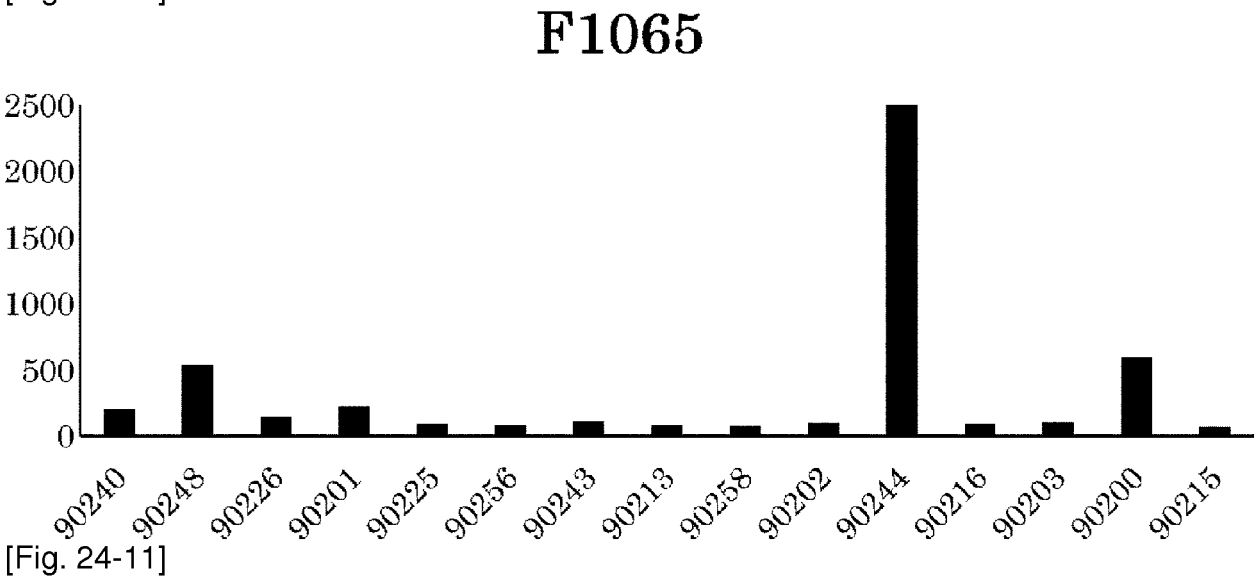
[Fig. 24-8]



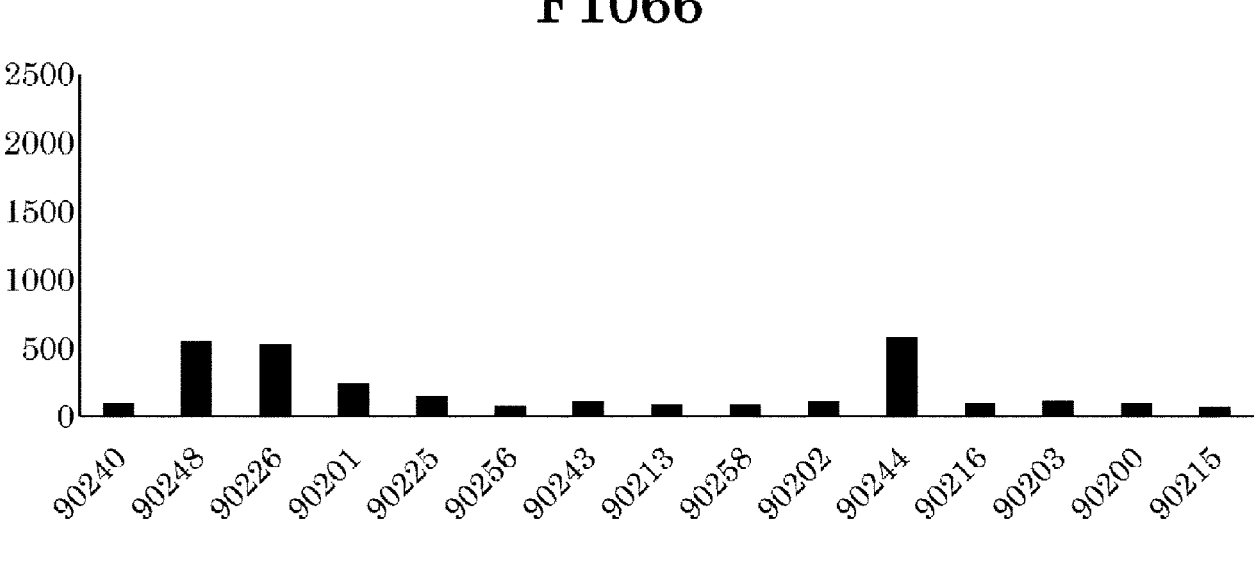
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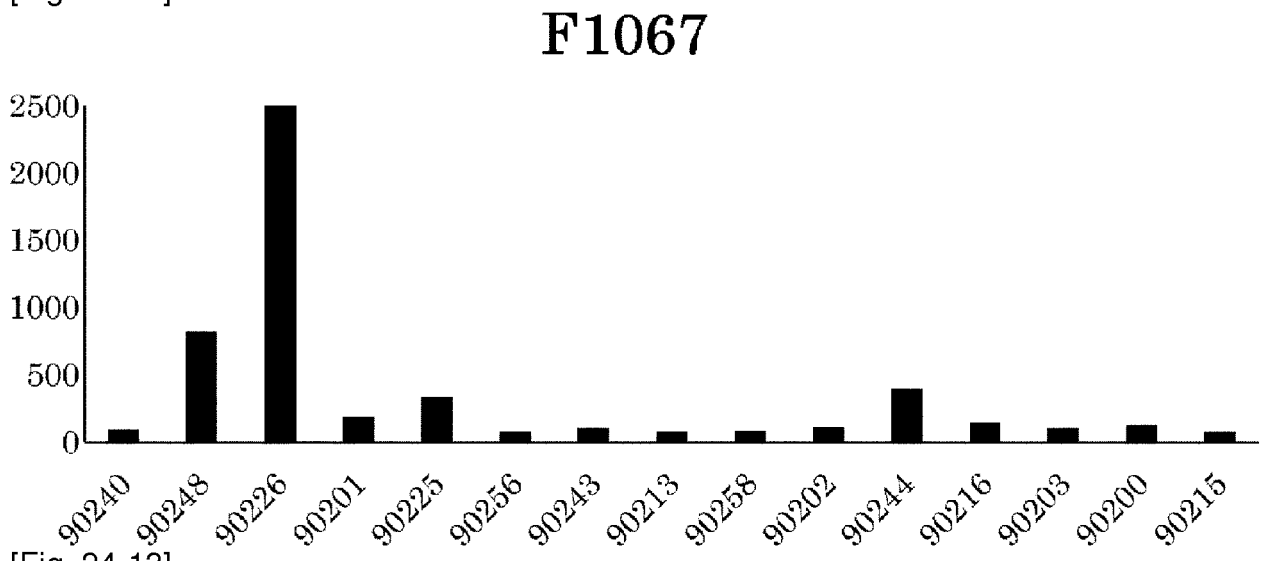
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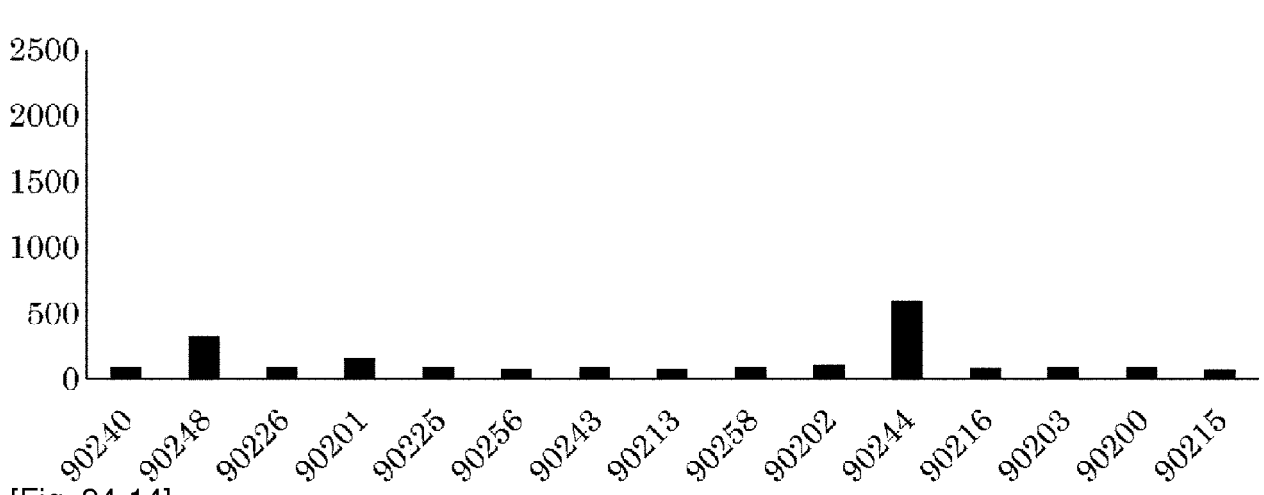
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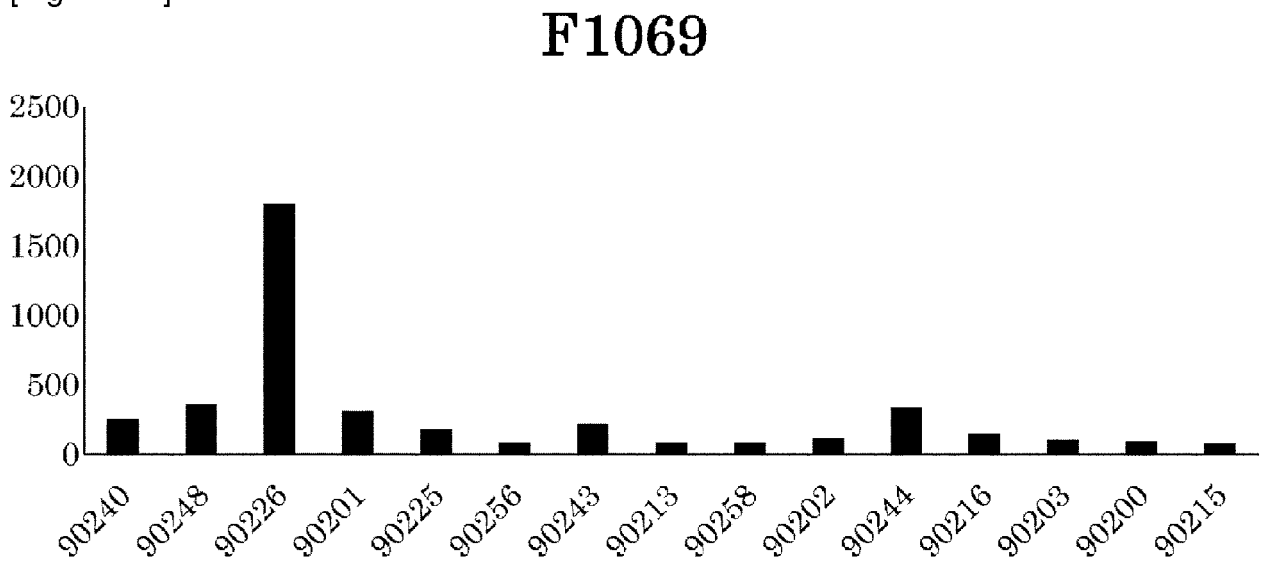
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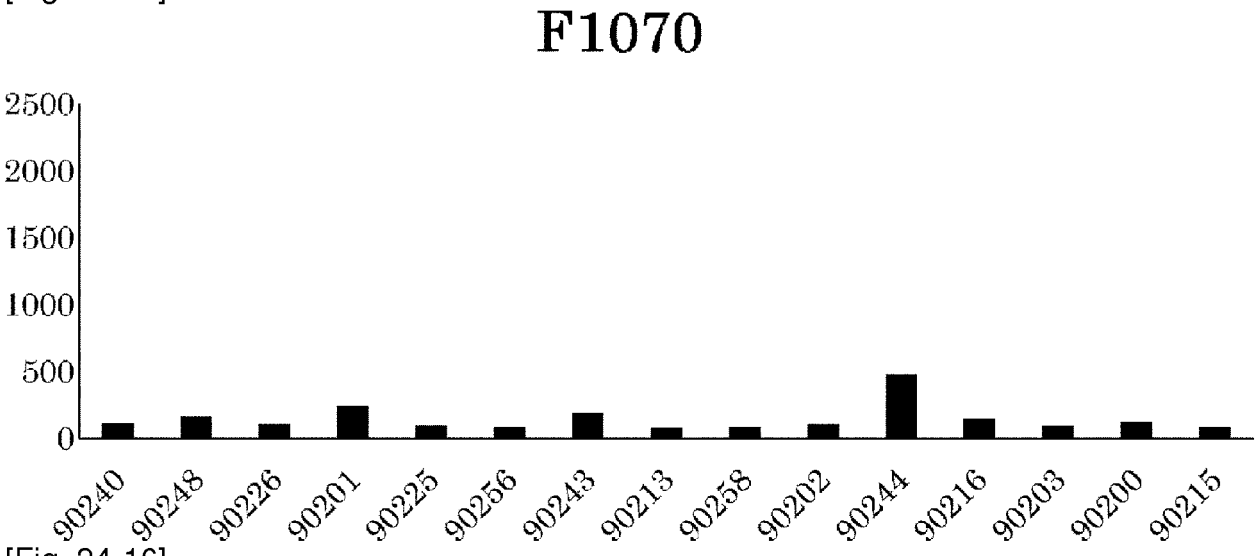
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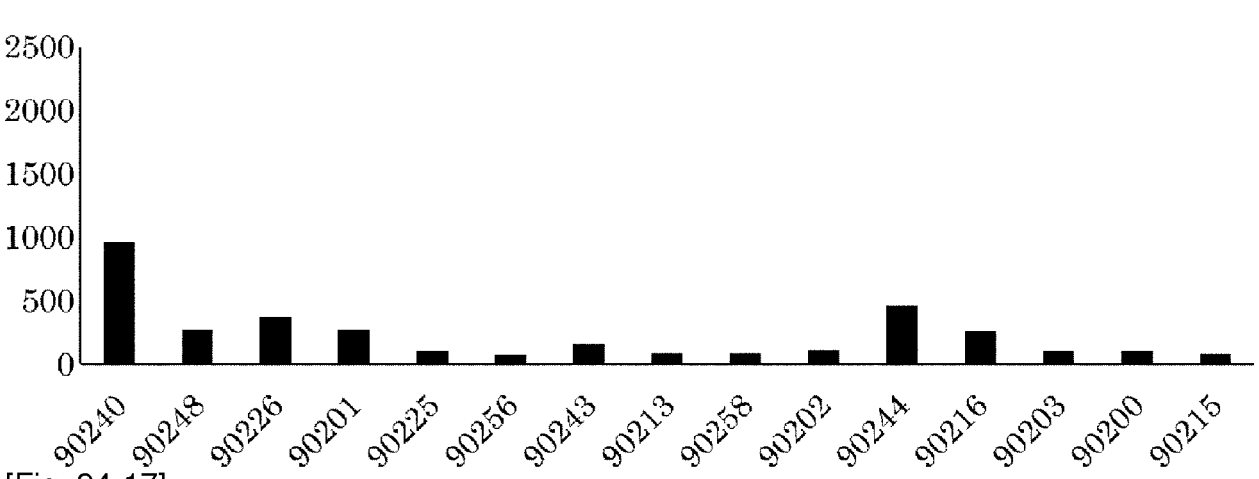
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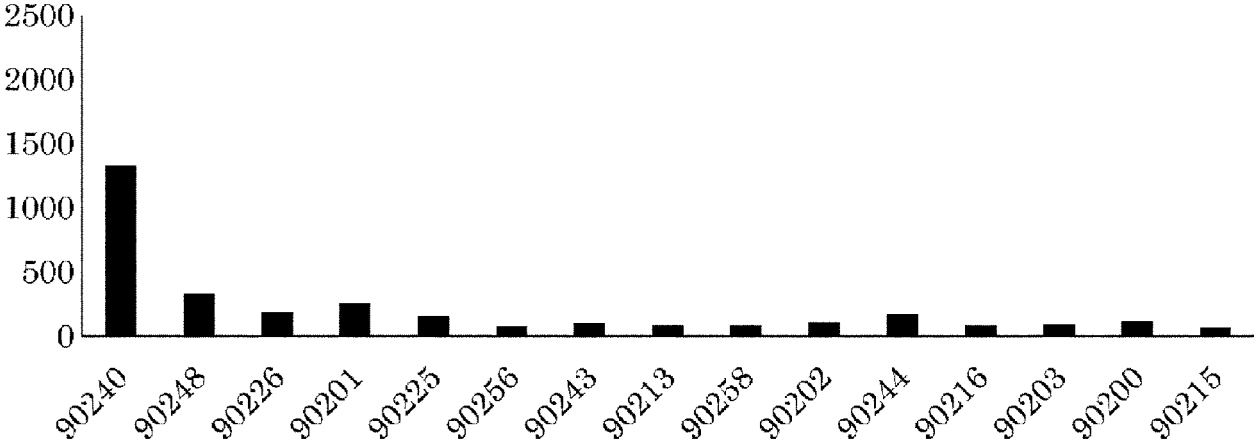
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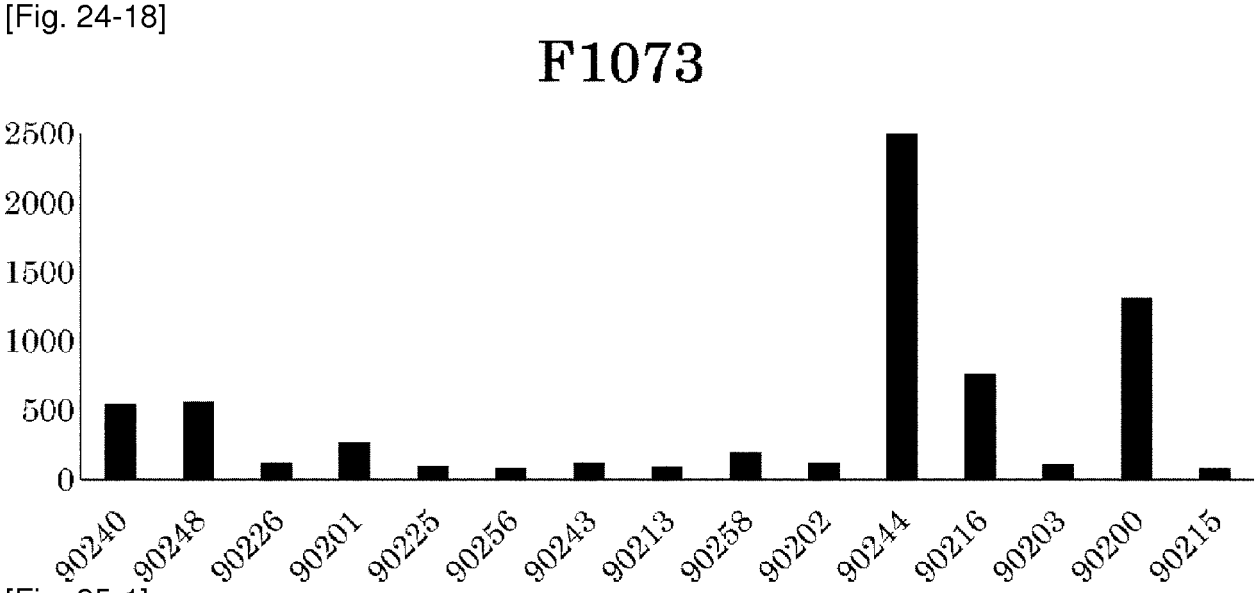
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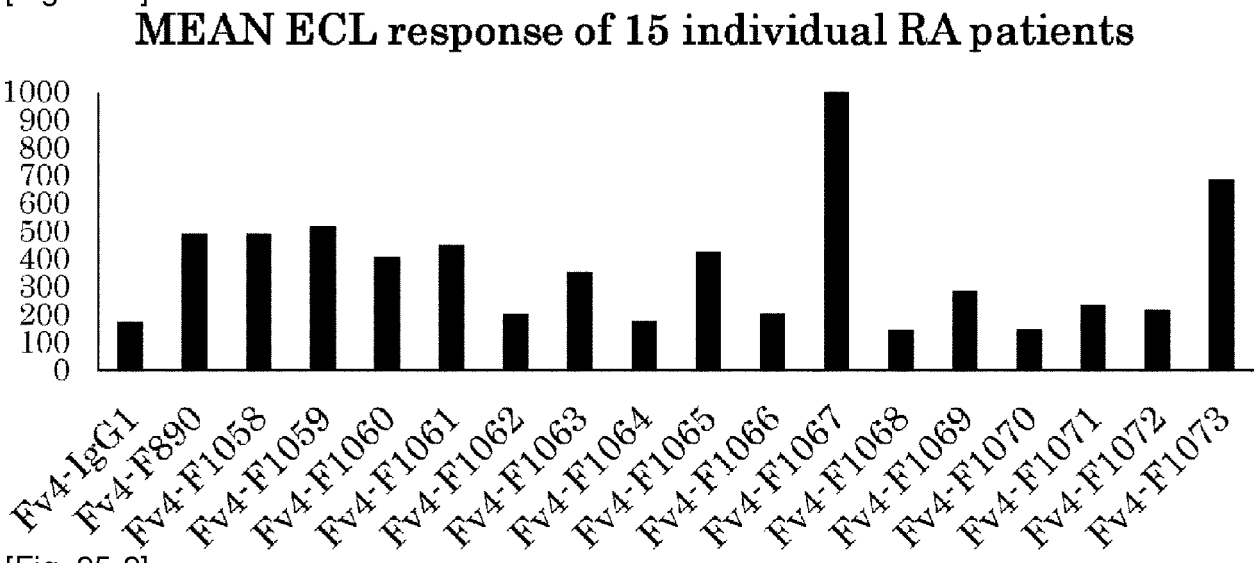
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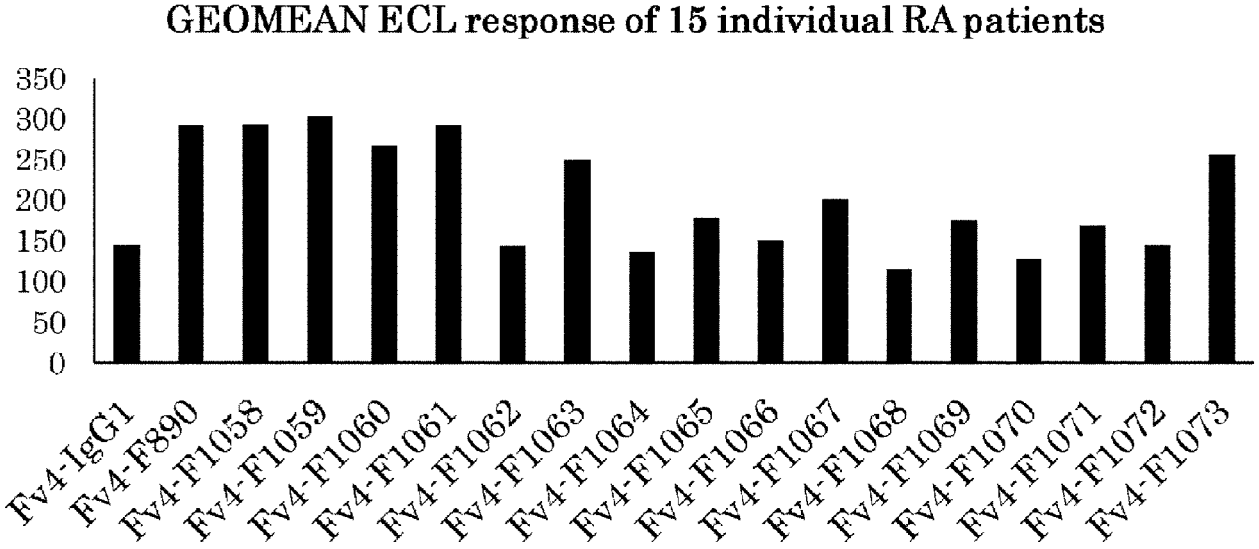
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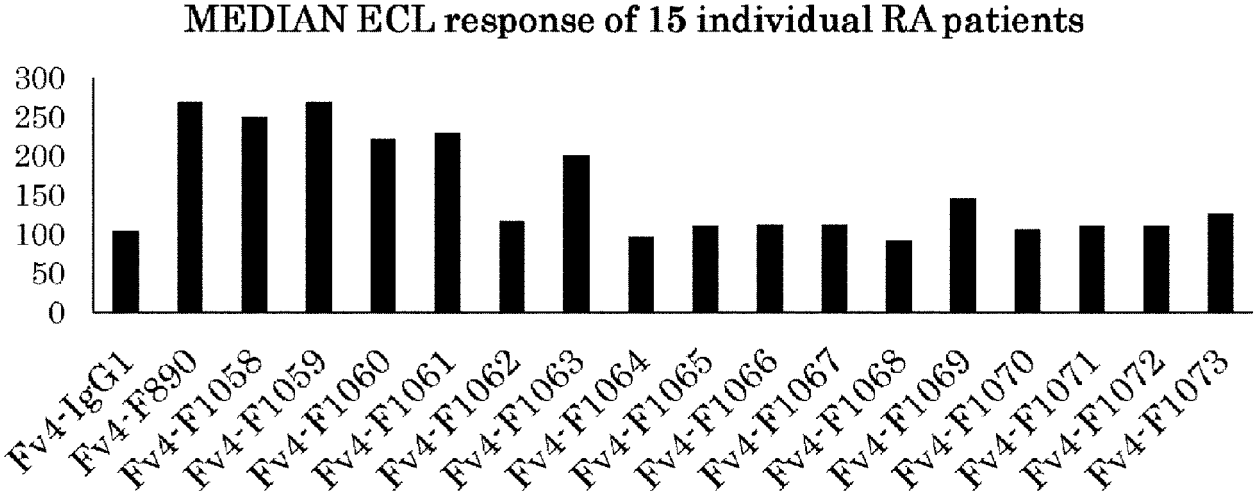
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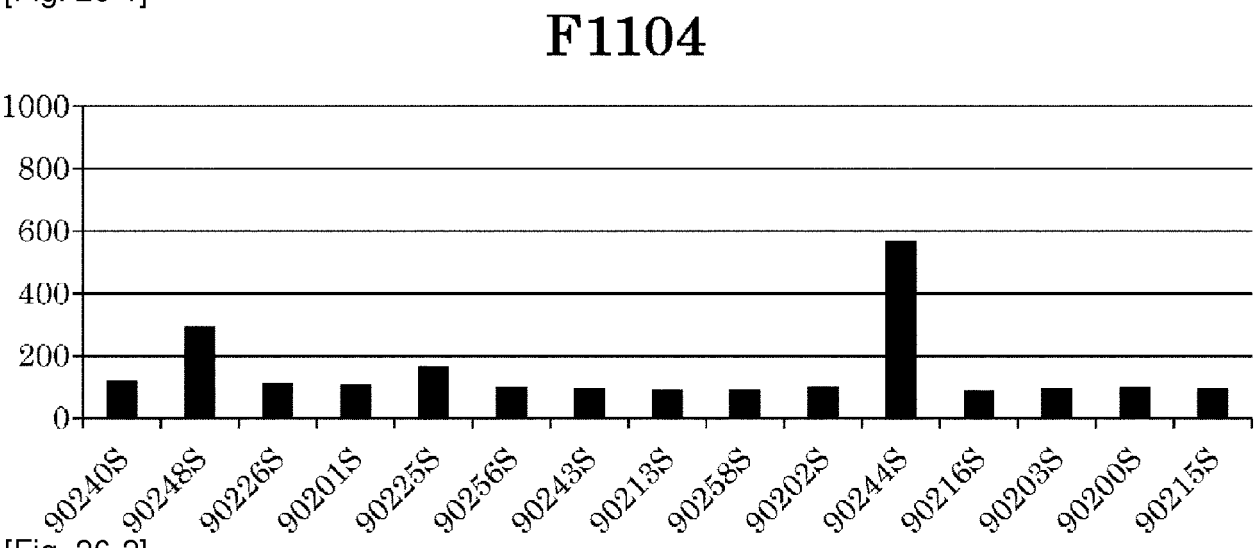
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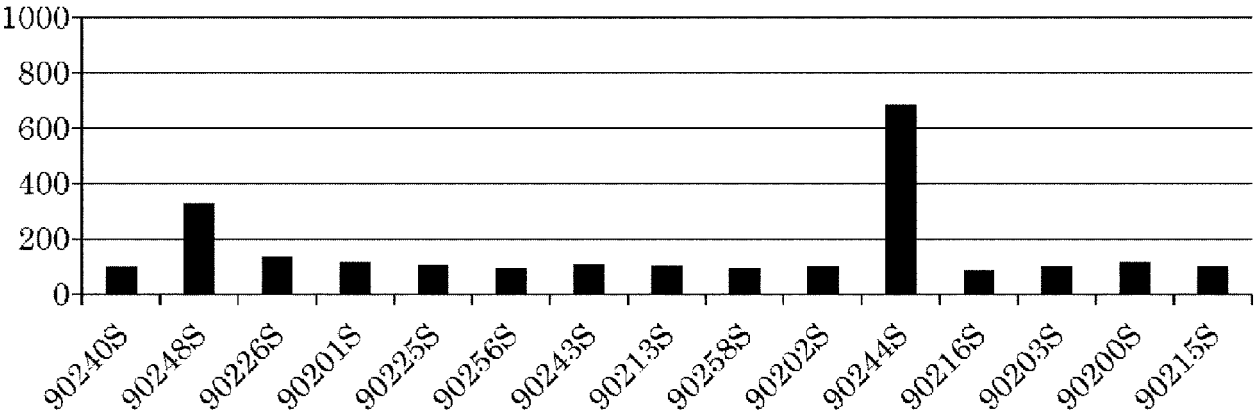
[Fig. 25-3]



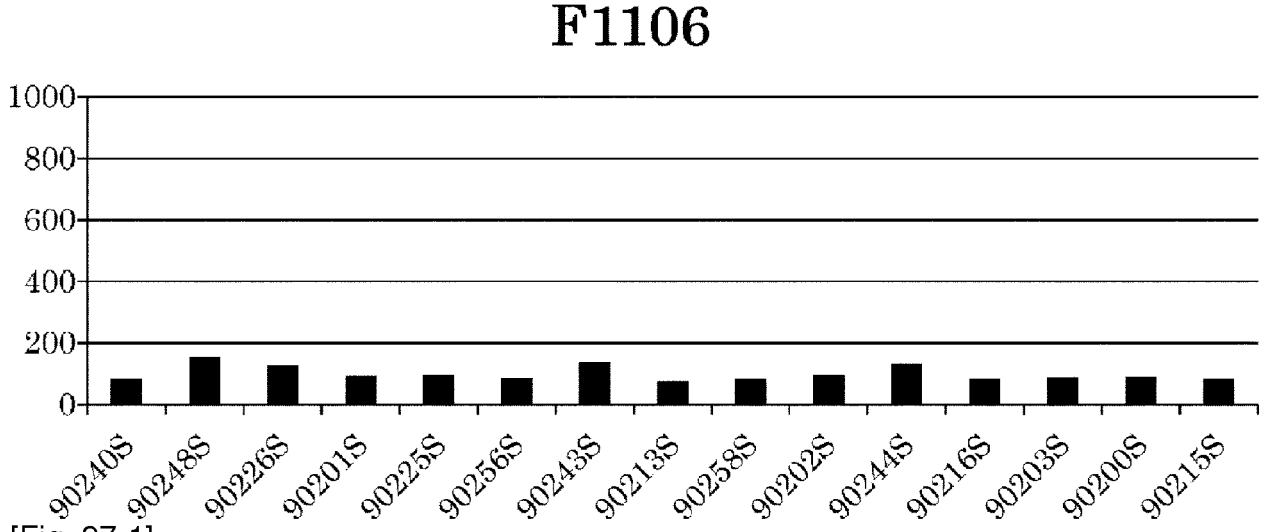
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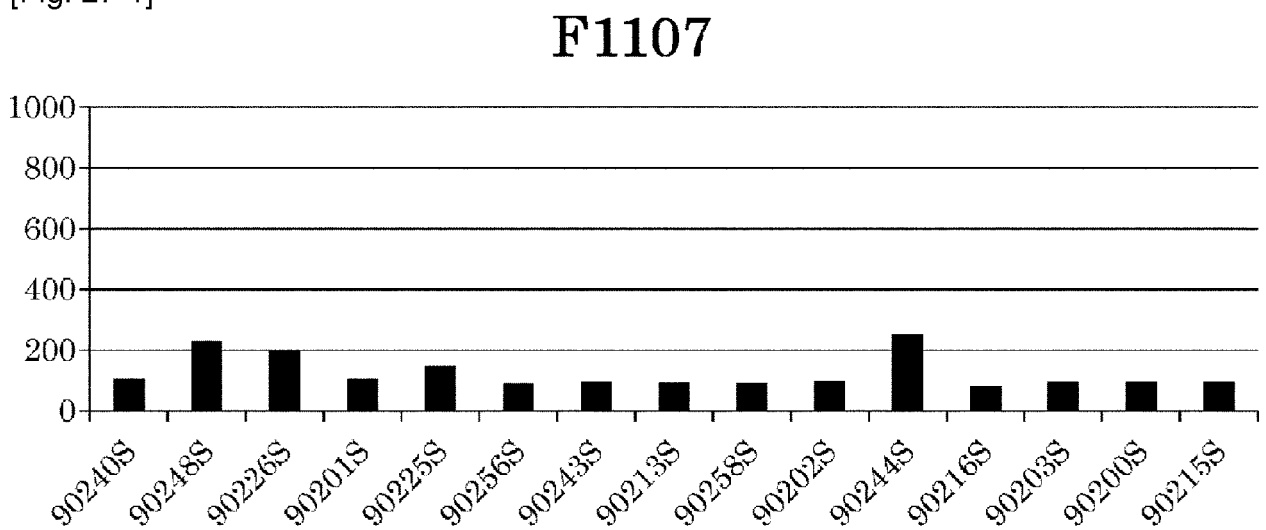
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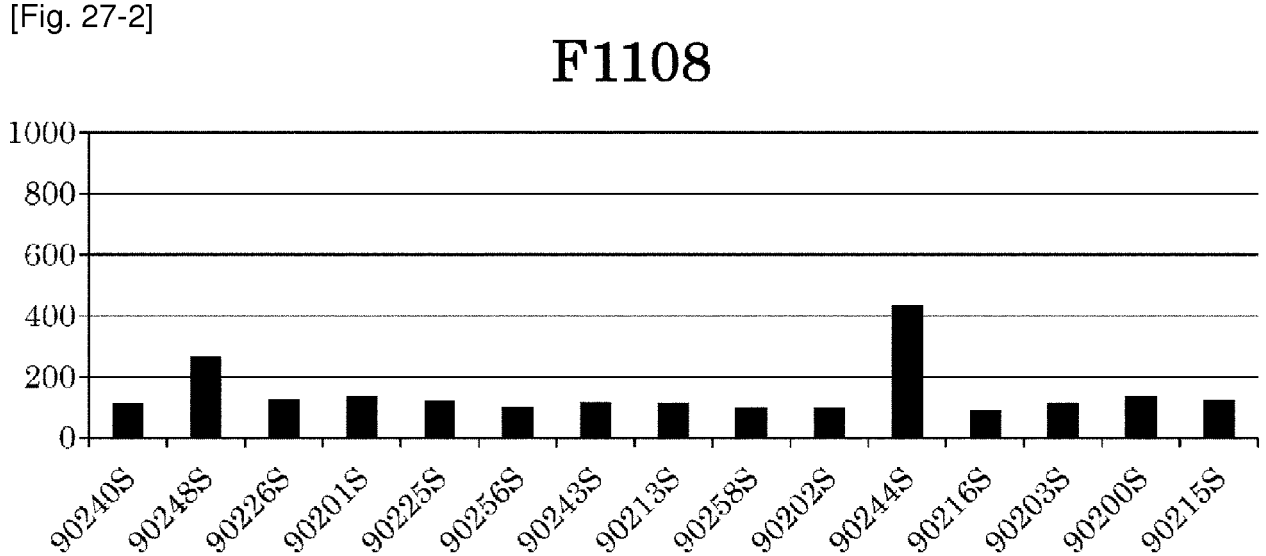
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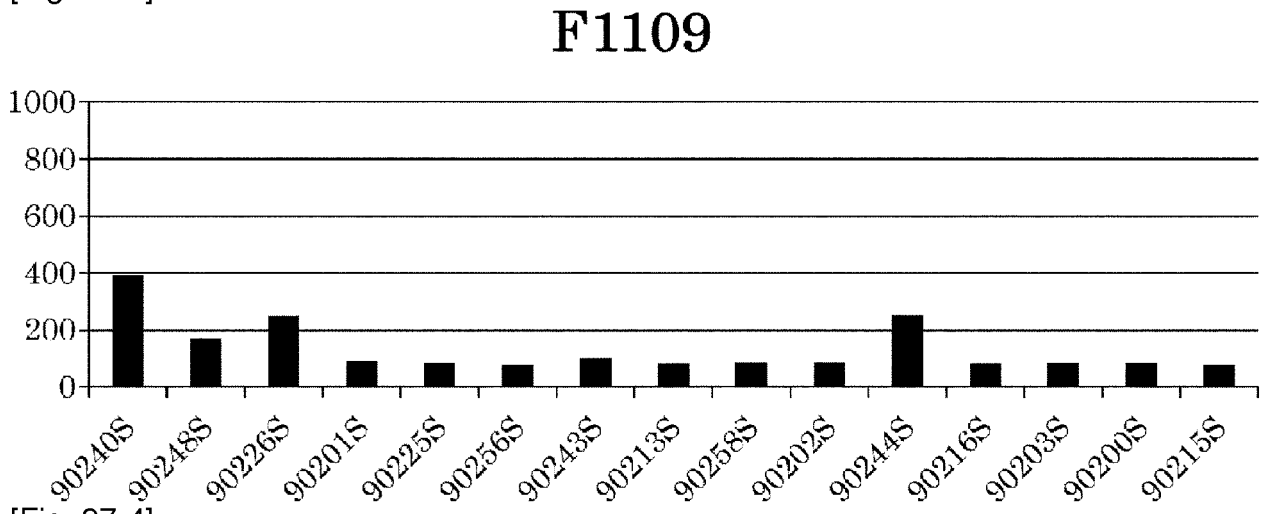
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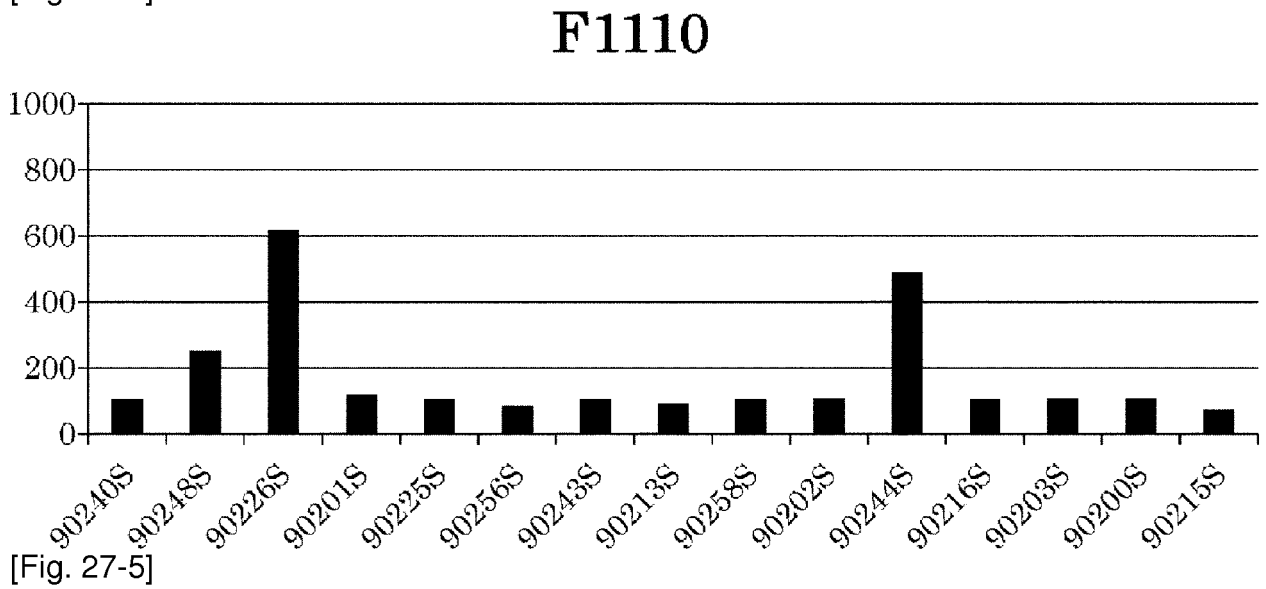
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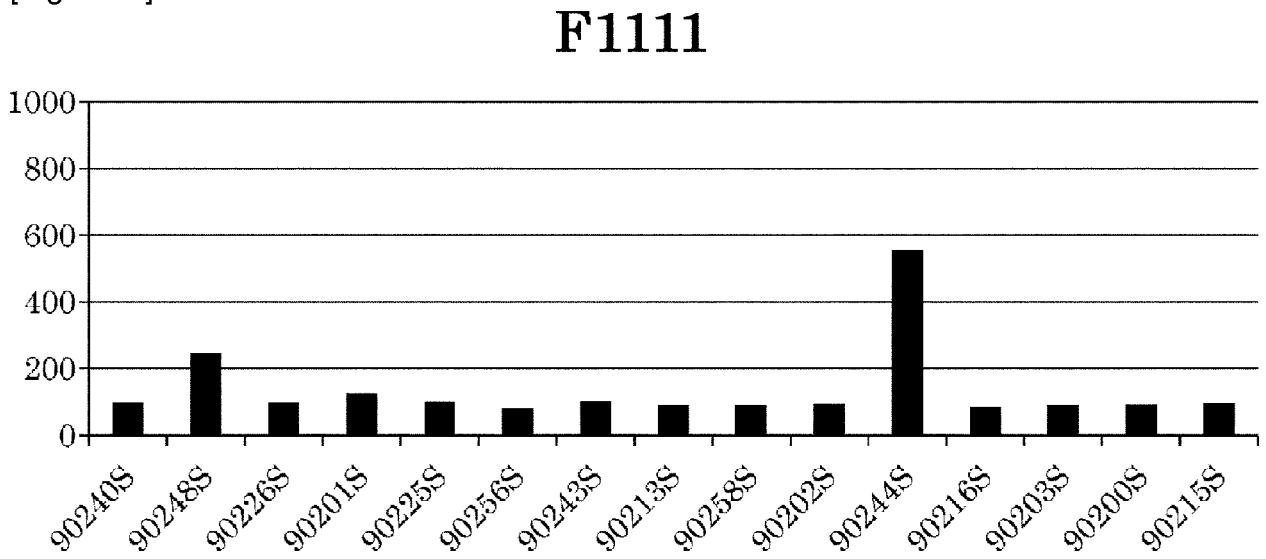
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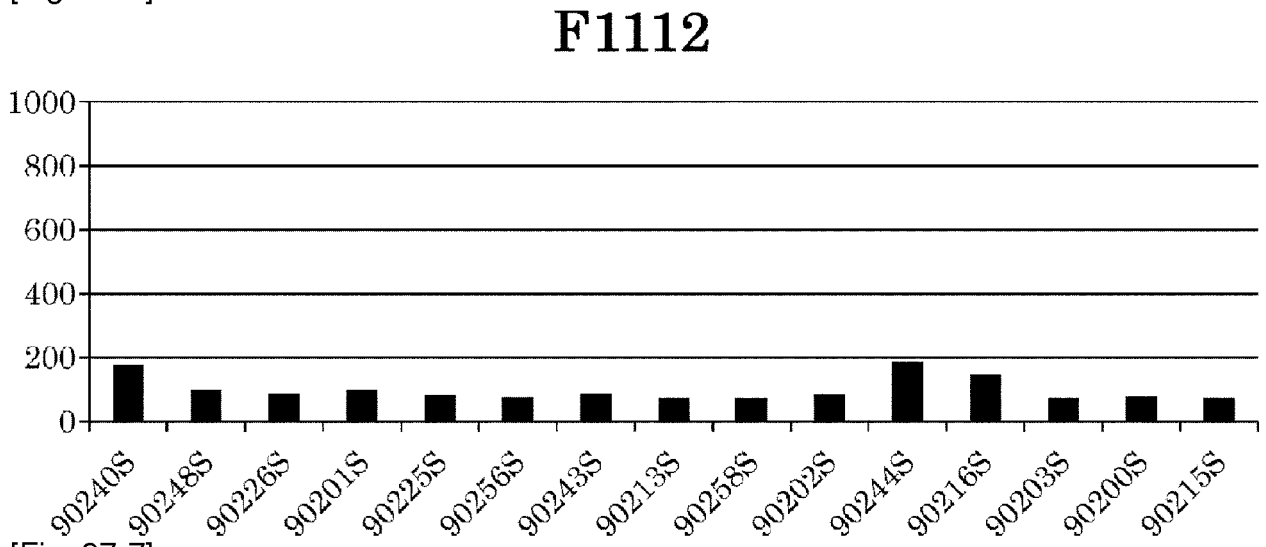
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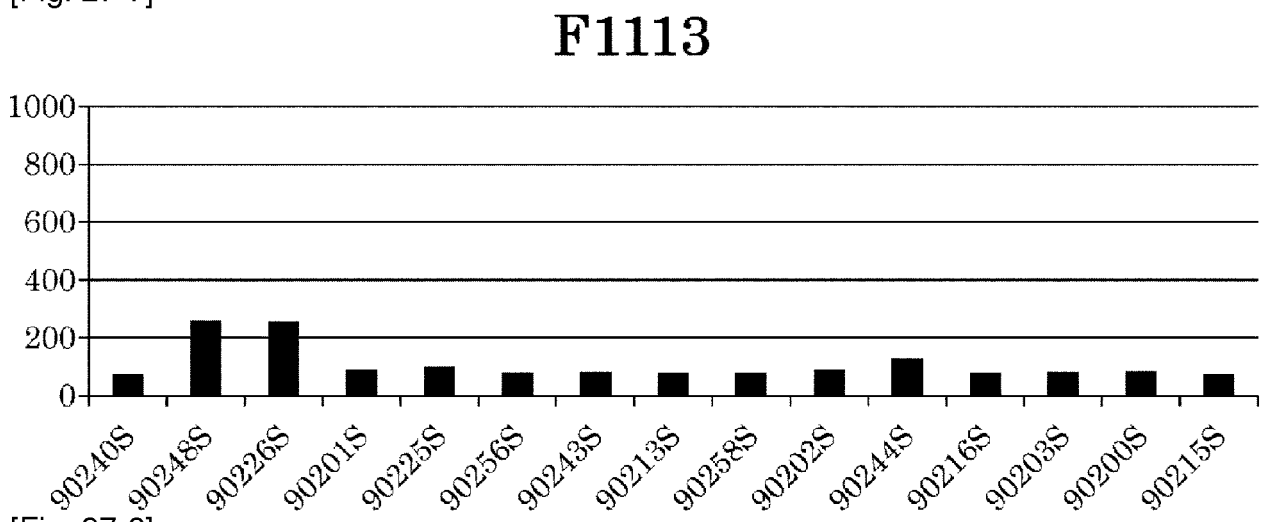
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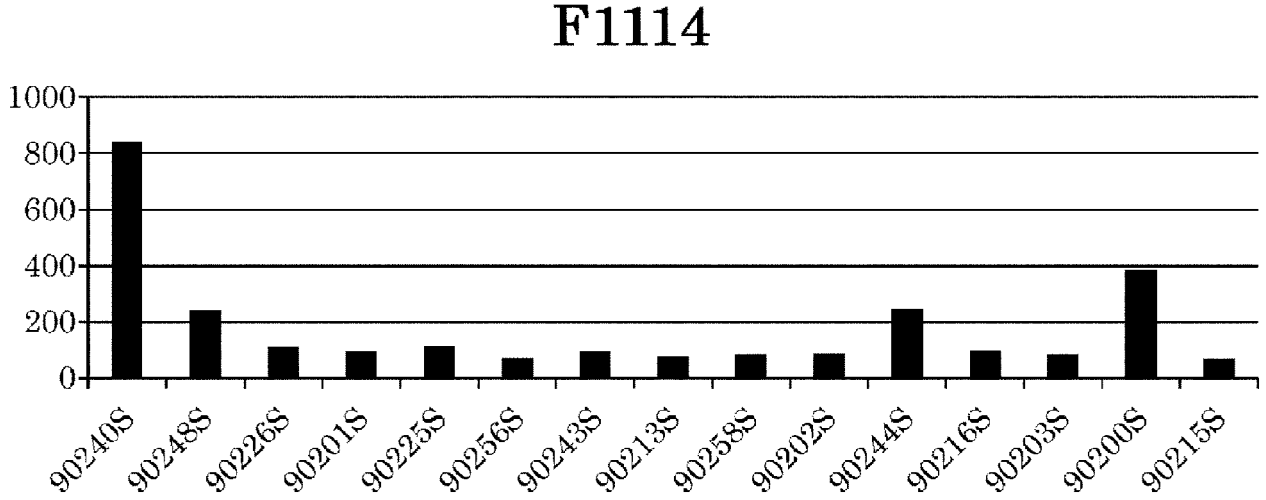
[Fig. 27-6]



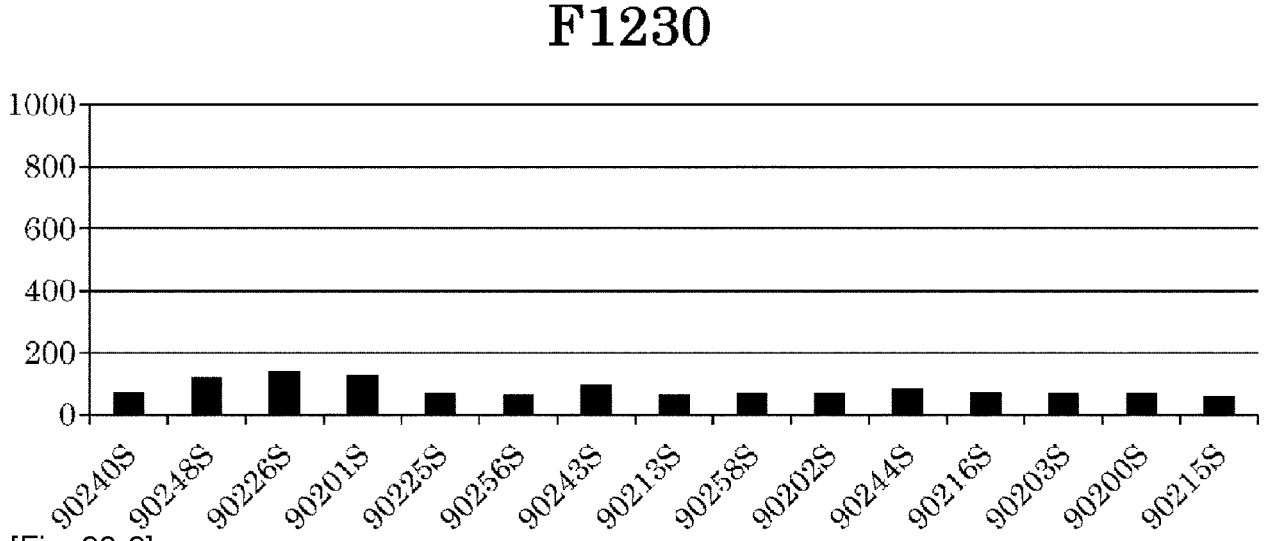
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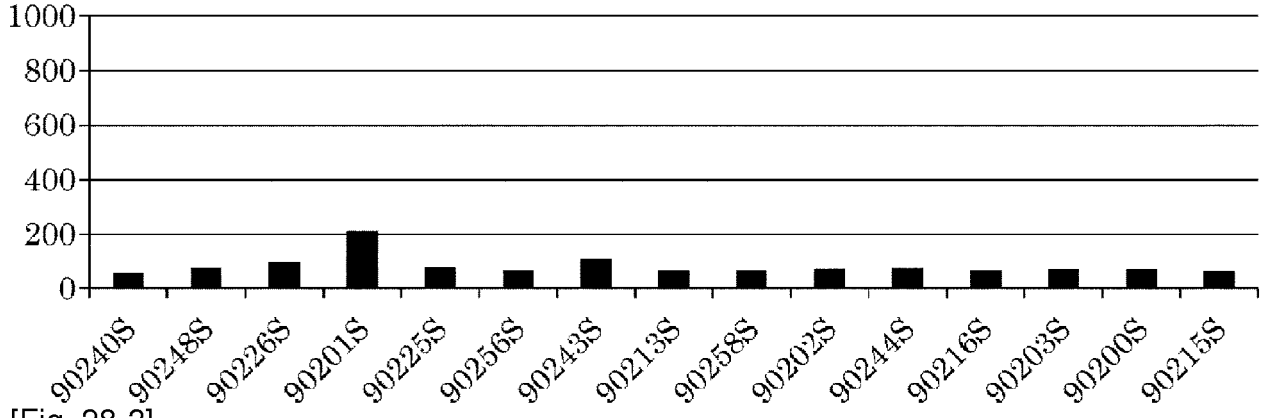
[Fig. 27-8]



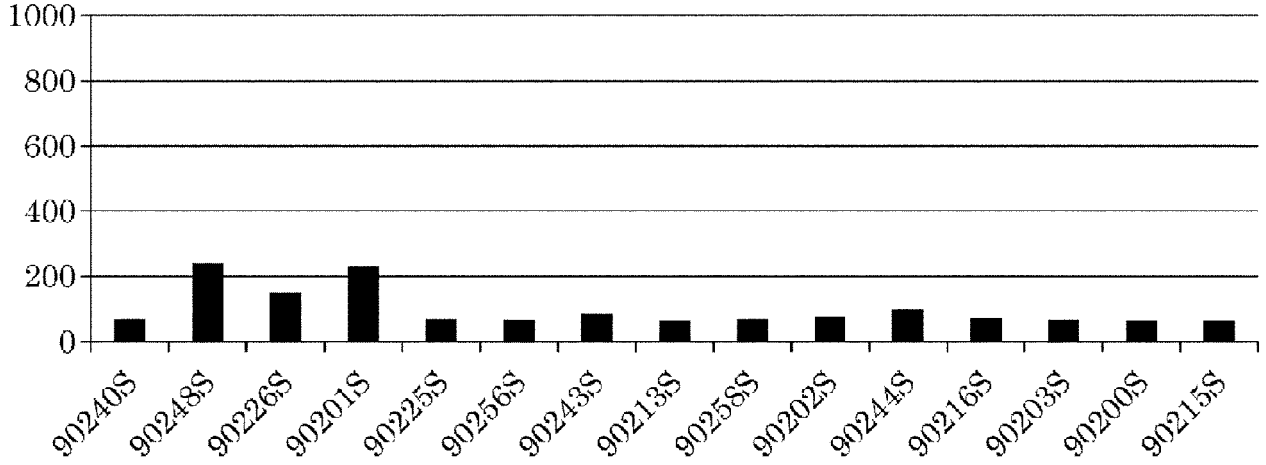
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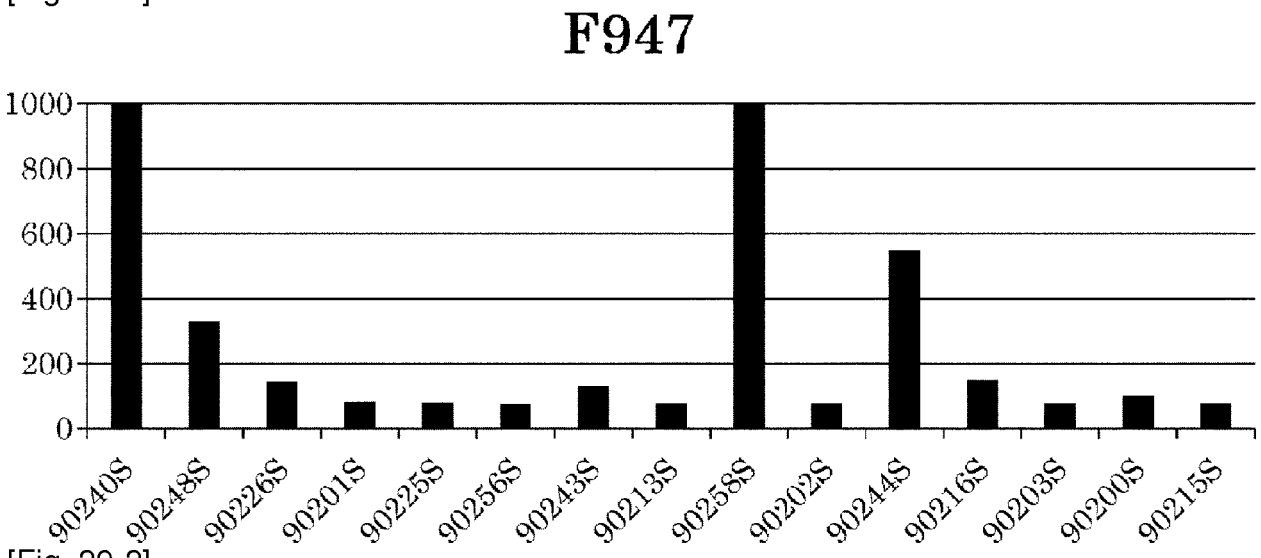
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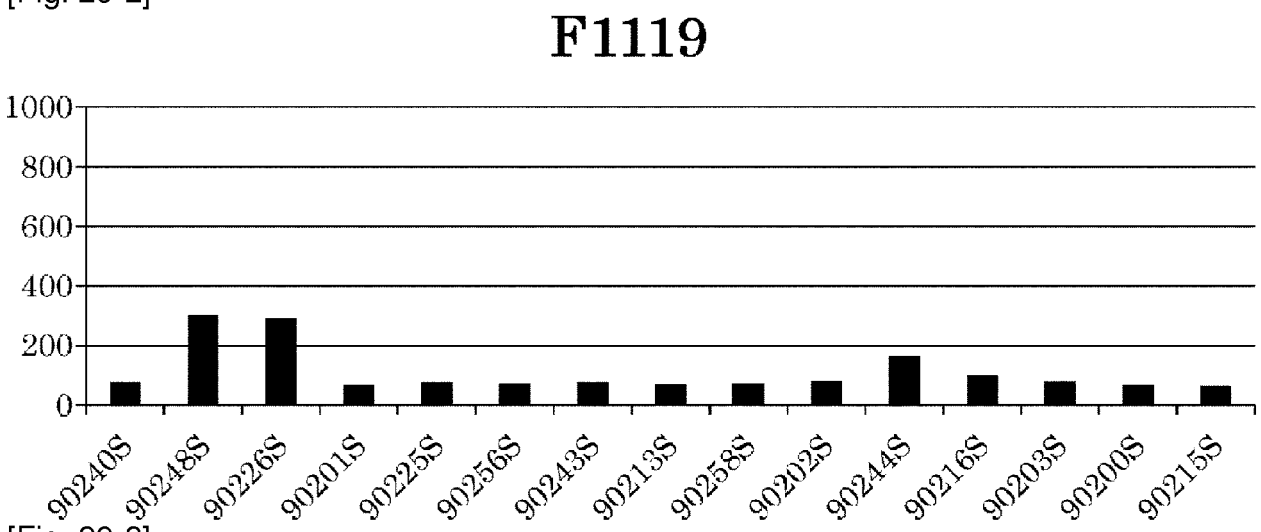
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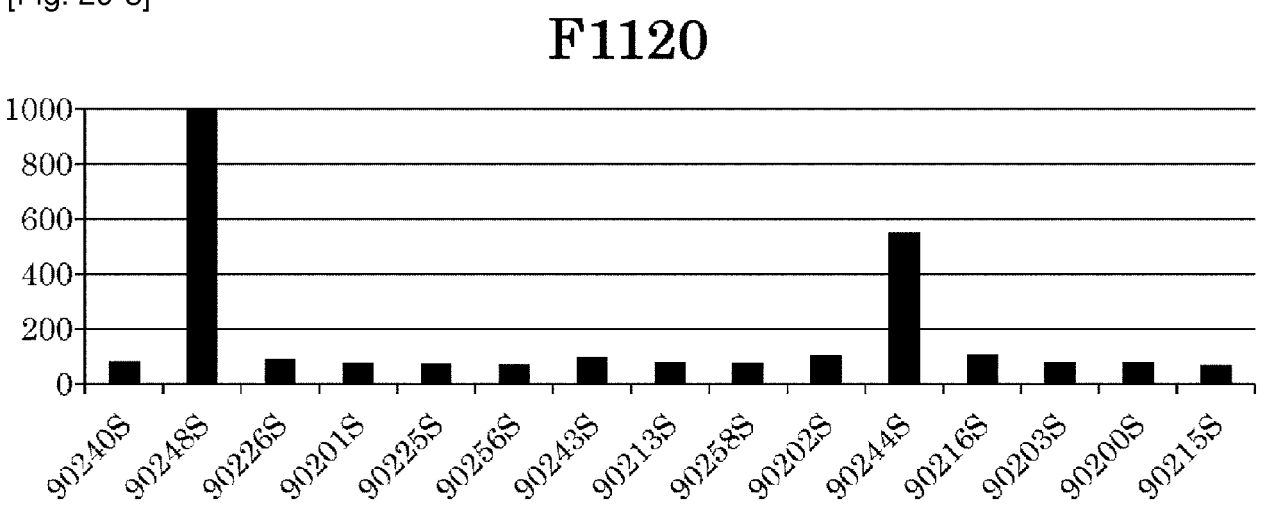
[Fig. 29-1]



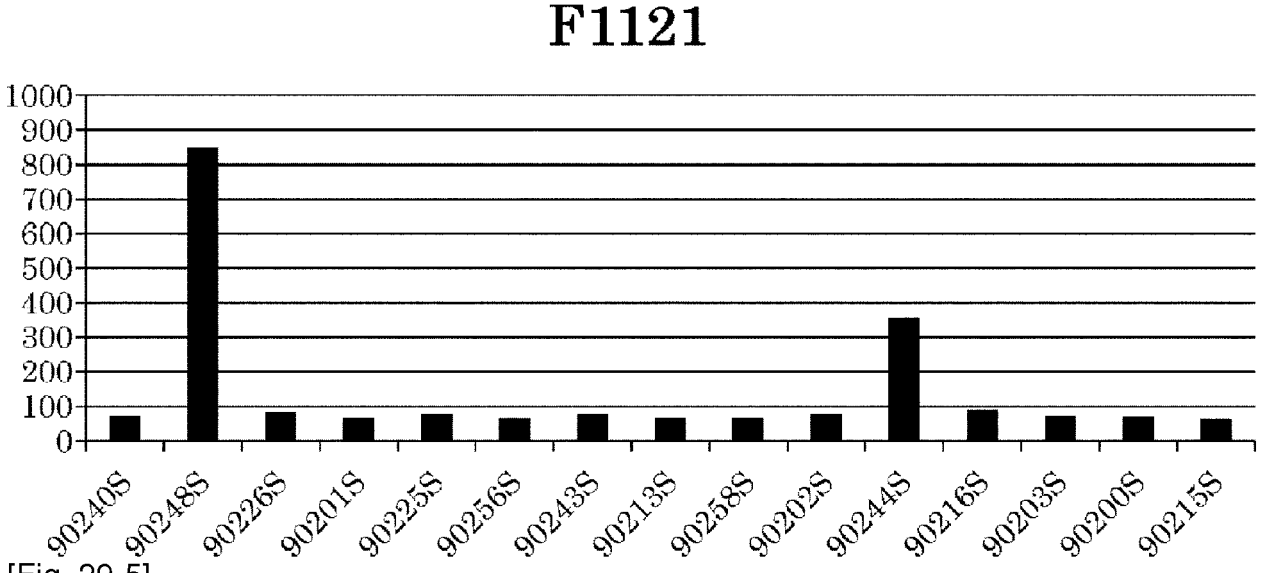
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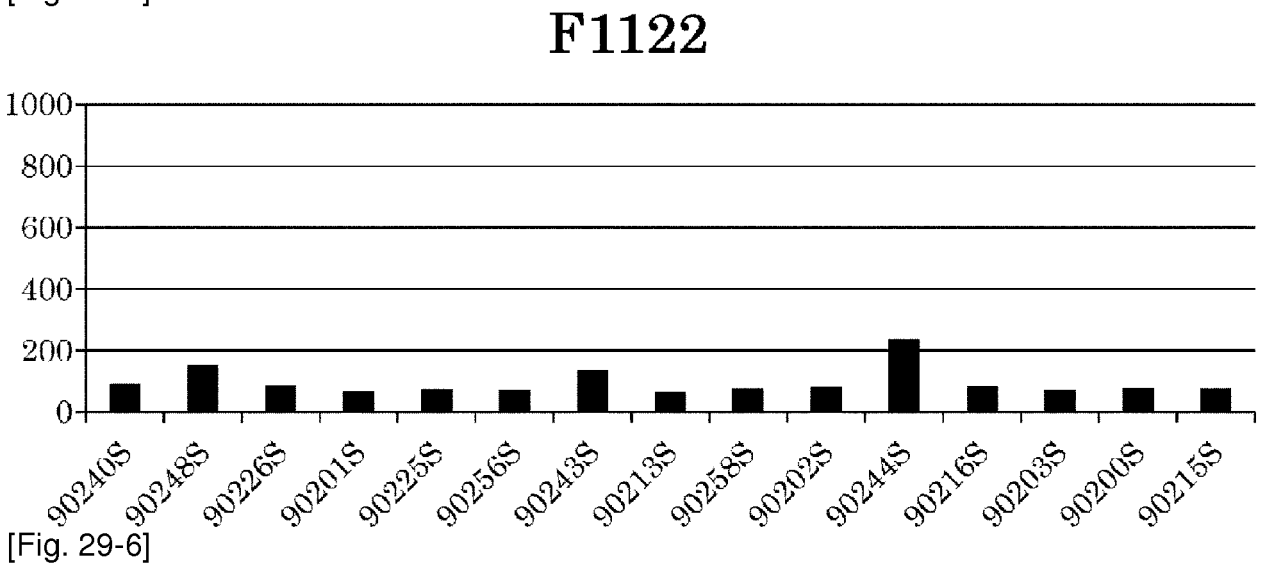
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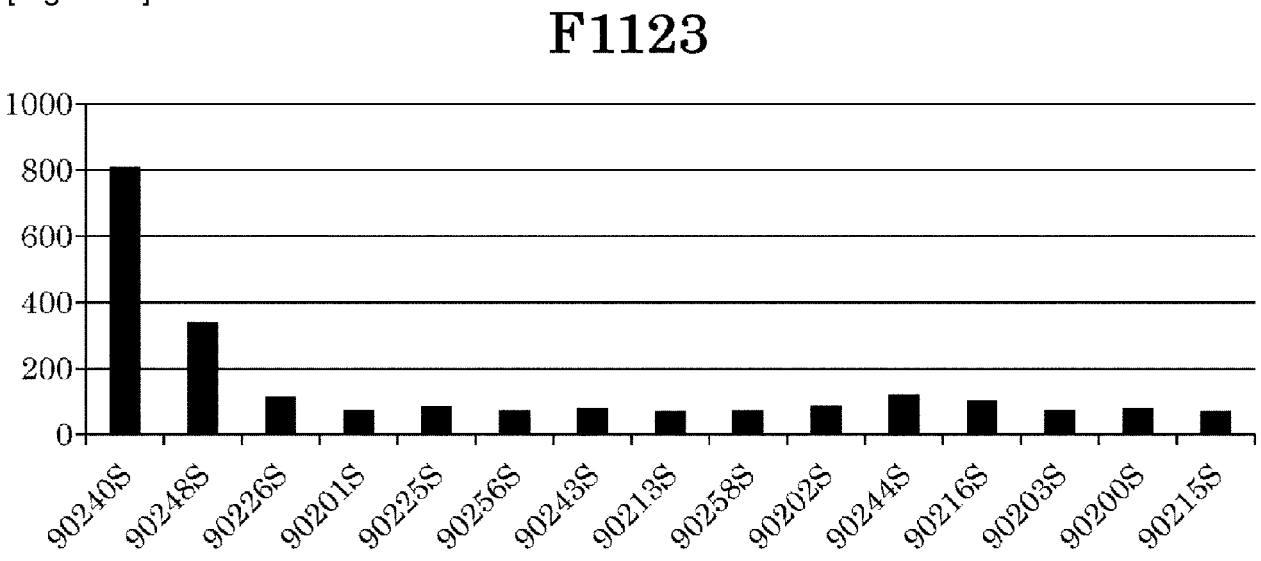
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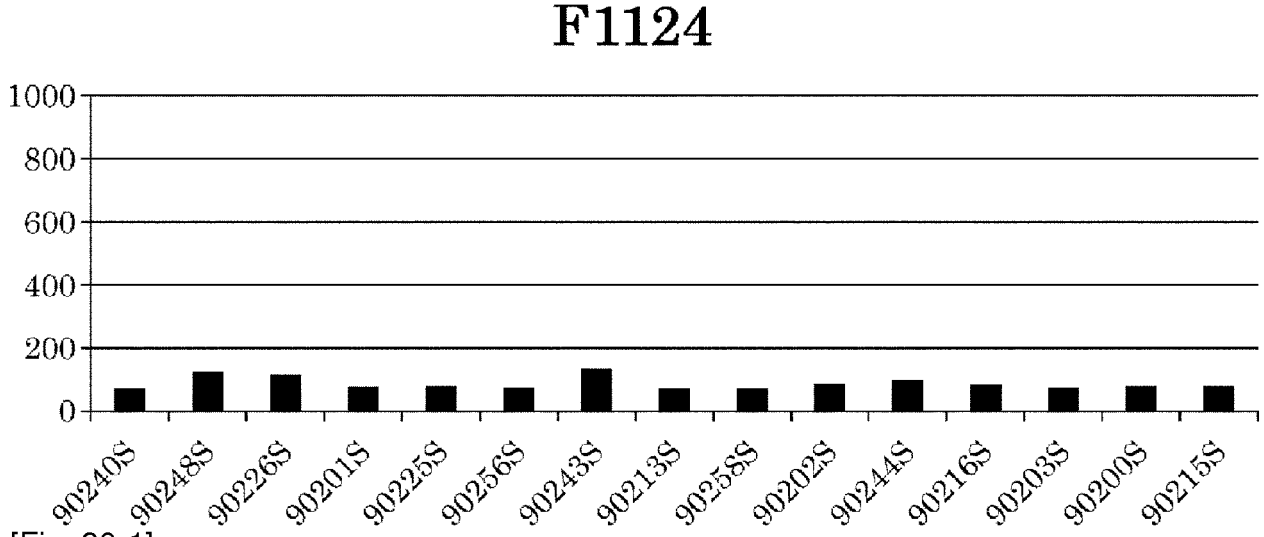
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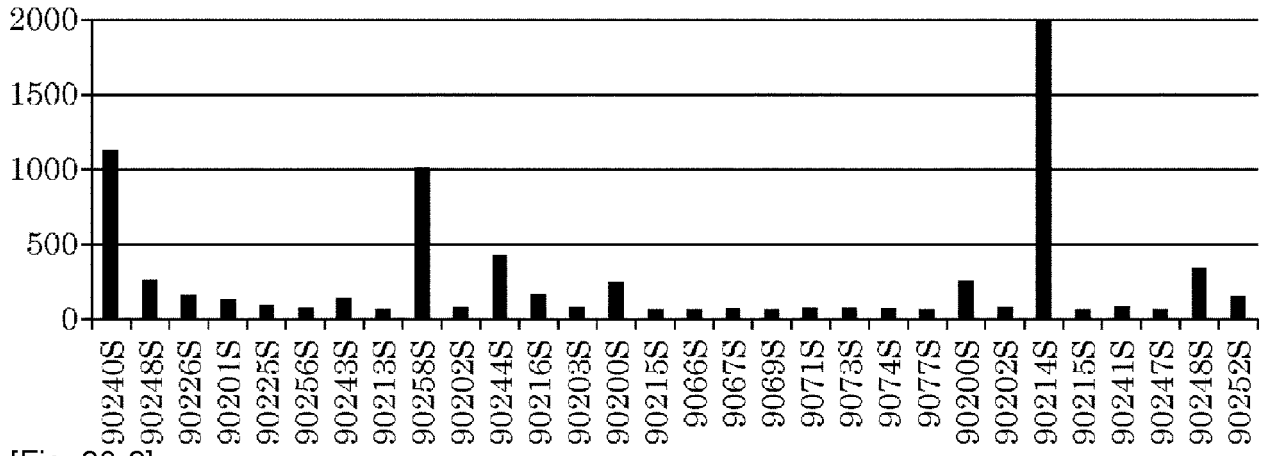
[Fig. 29-6]



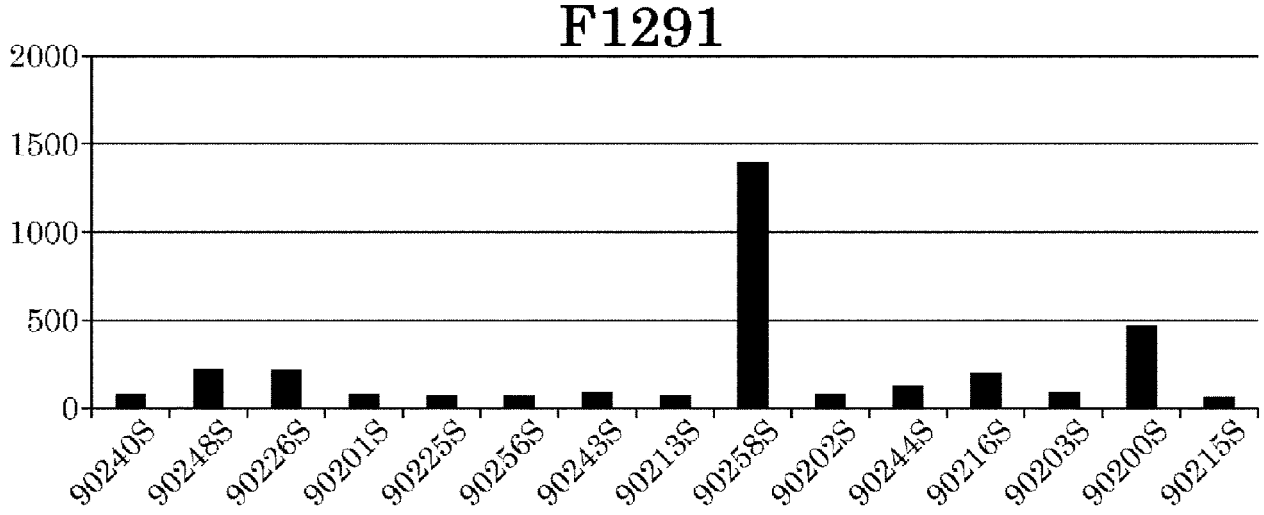
[Fig. 29-7]



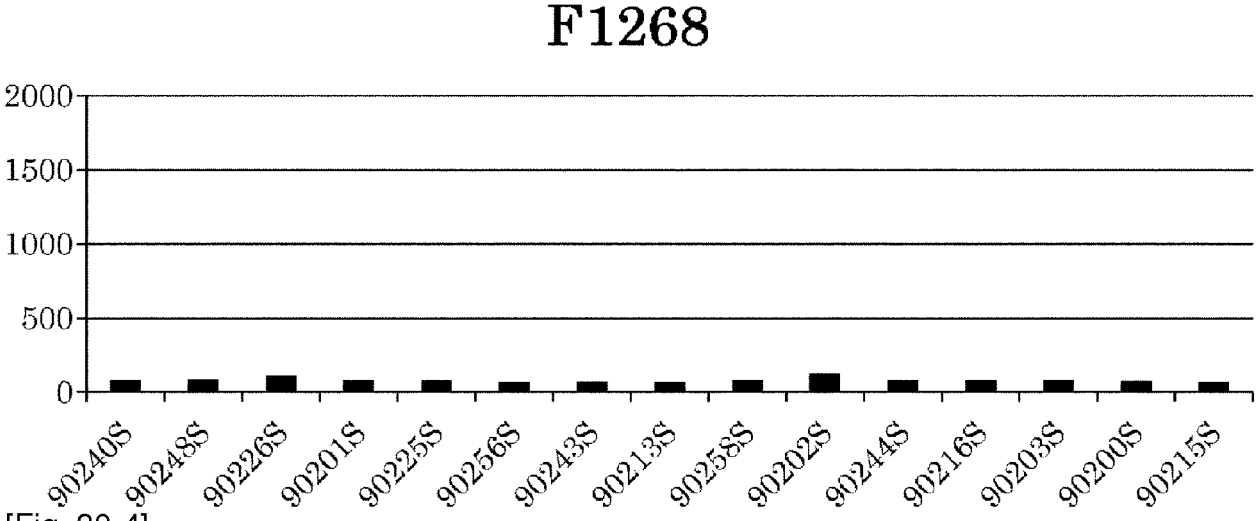
[Fig. 30-1]



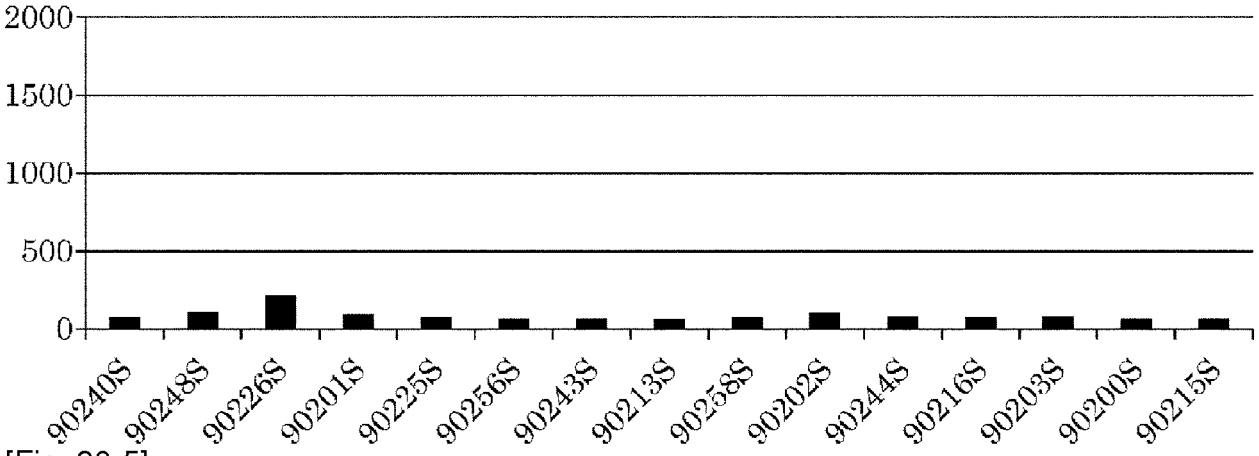
[Fig. 30-2]



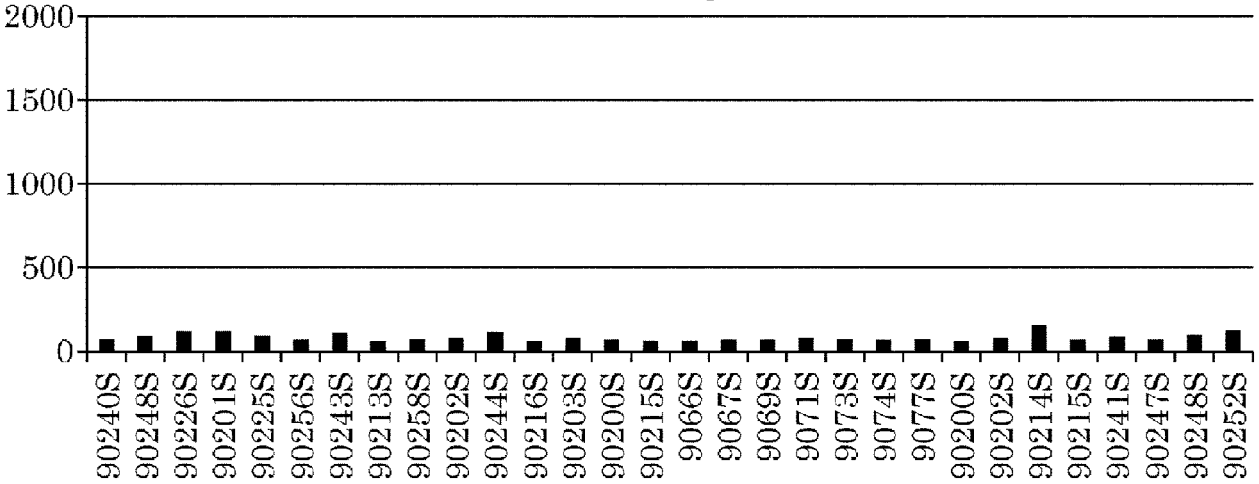
[Fig. 30-3]



[Fig. 30-4]



[Fig. 30-5]



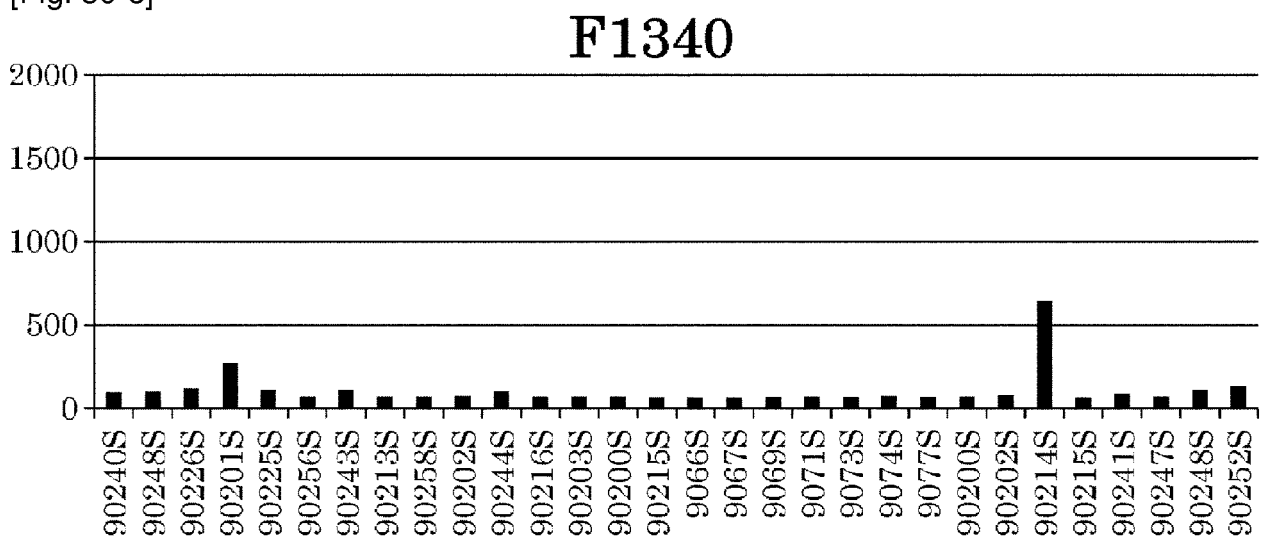
[Fig. 30-6]



[Fig. 30-7]



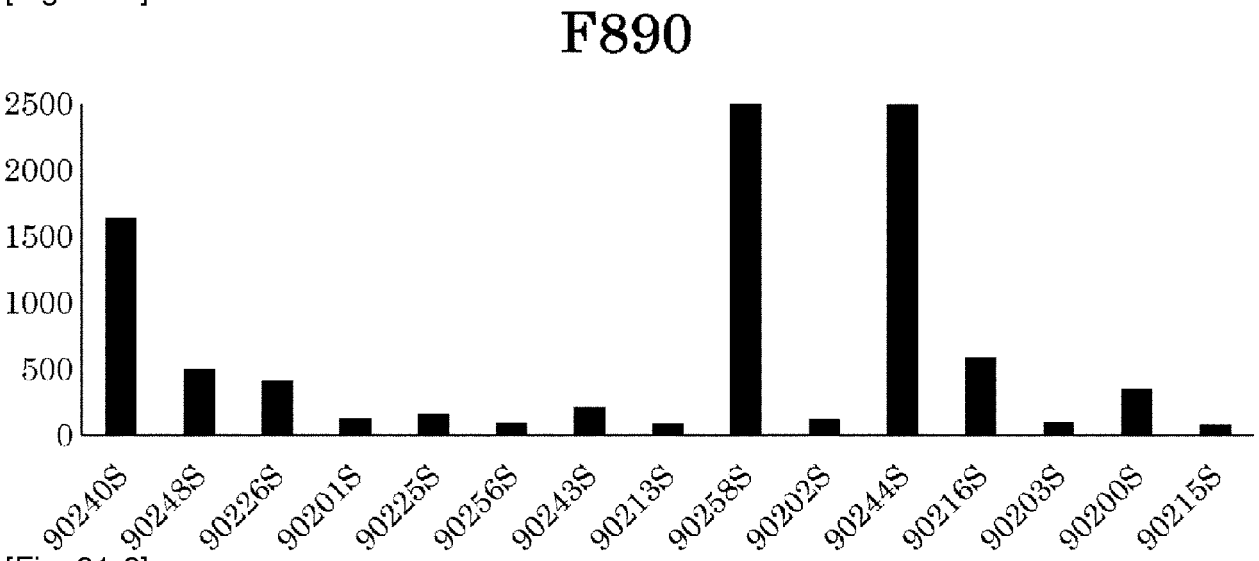
[Fig. 30-8]



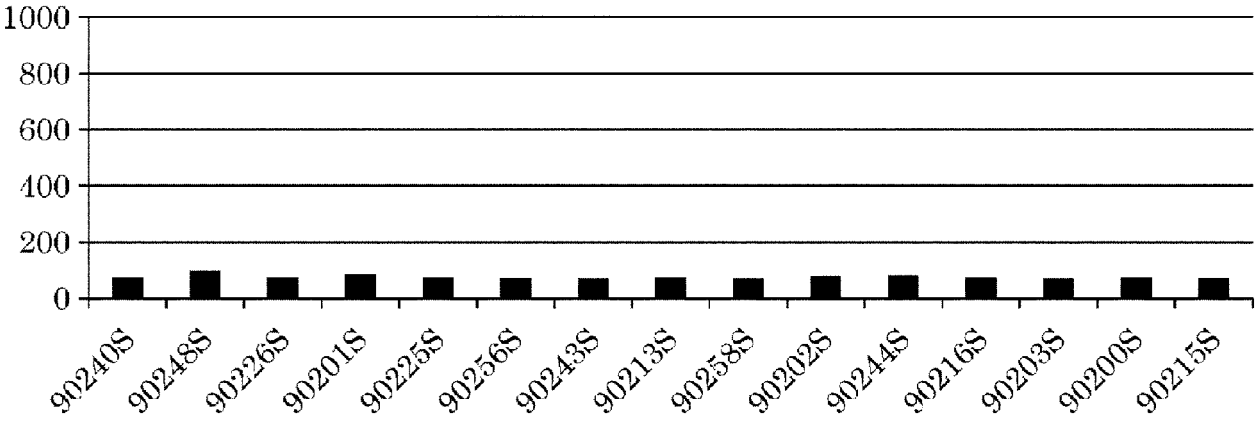
[Fig. 30-9]



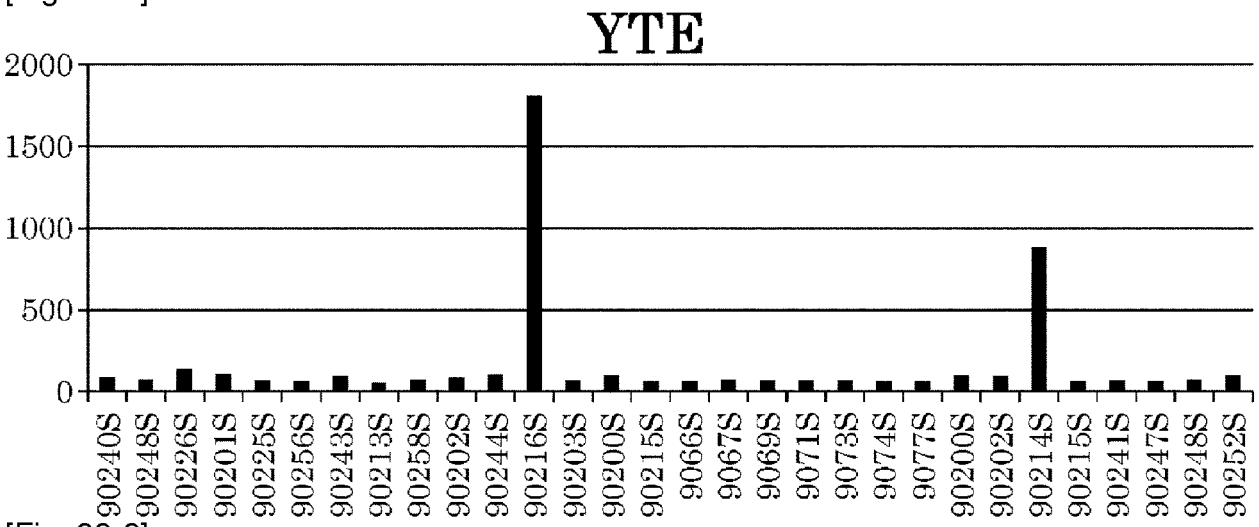
[Fig. 31-1]



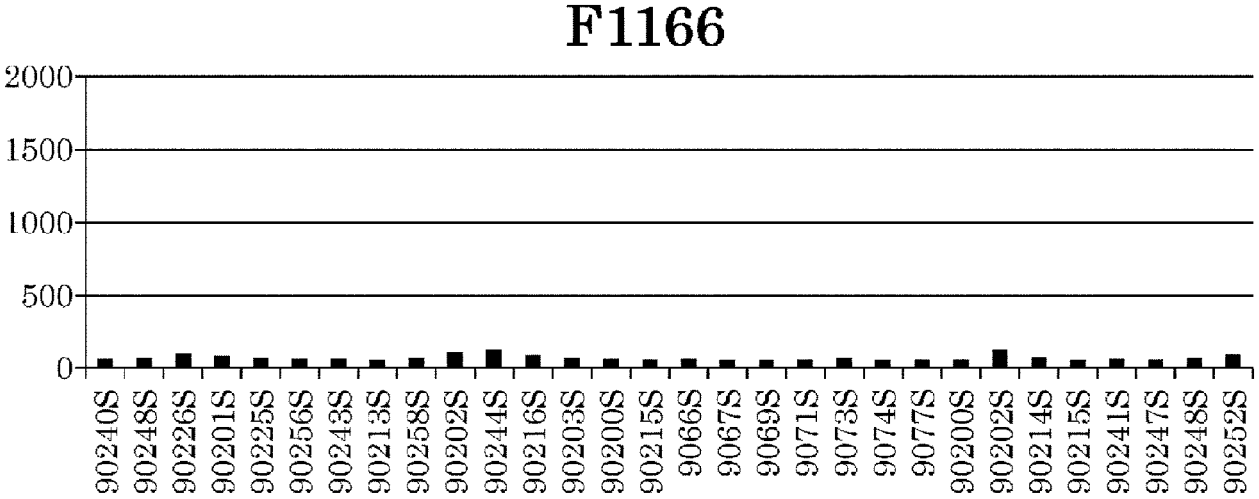
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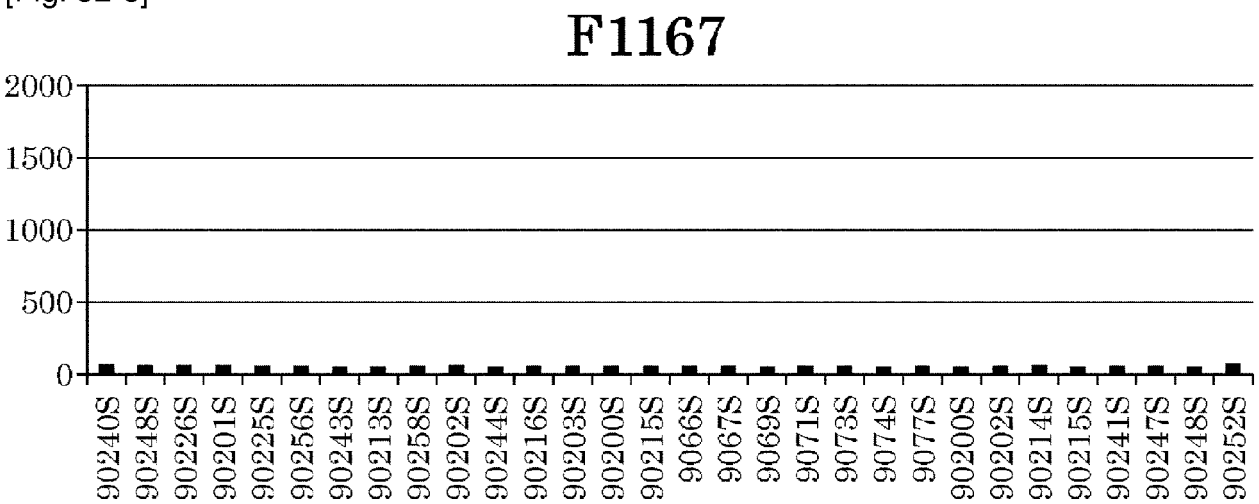
[Fig. 32-1]



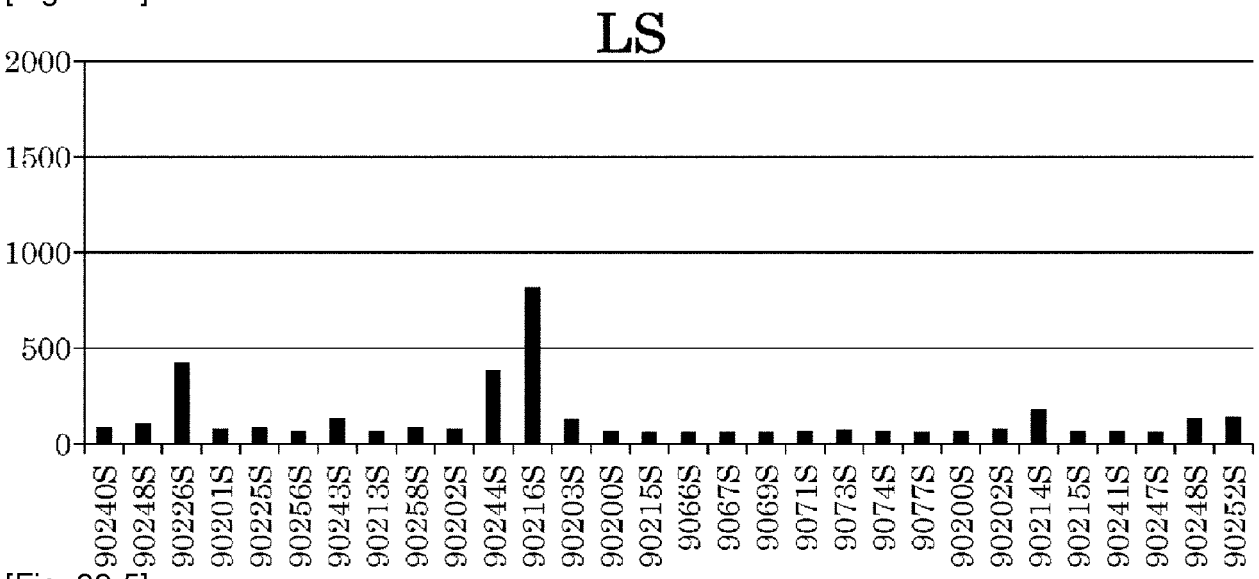
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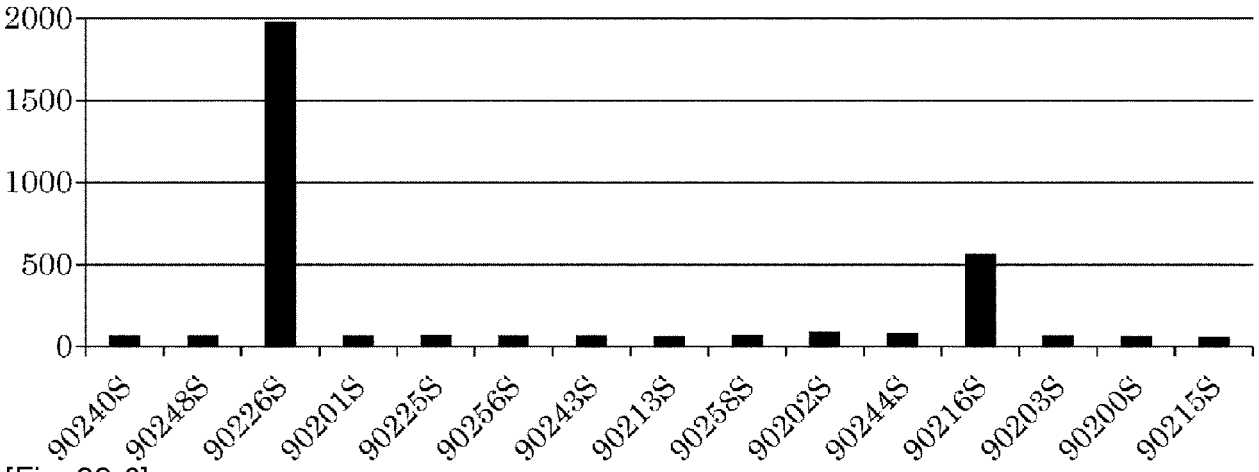
[Fig. 32-3]



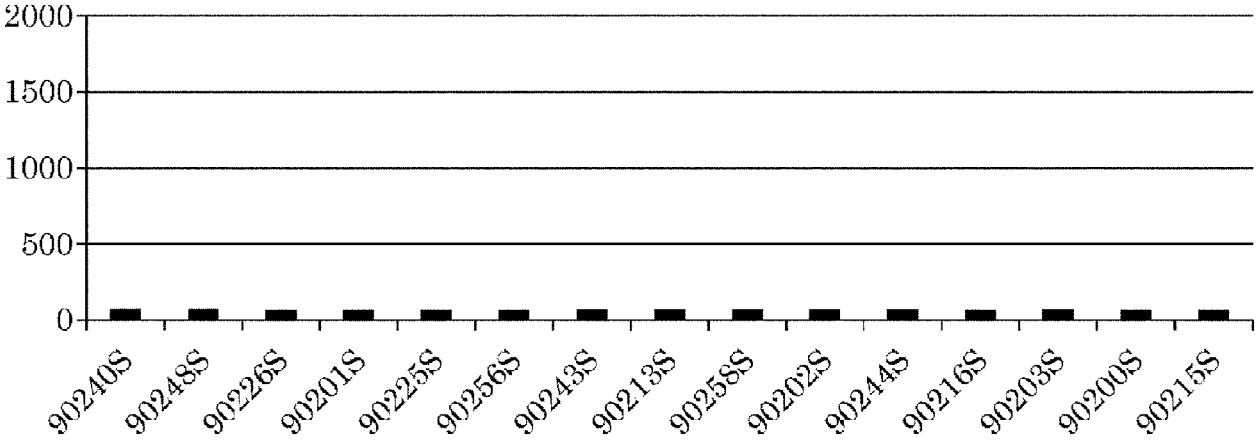
[Fig. 32-4]



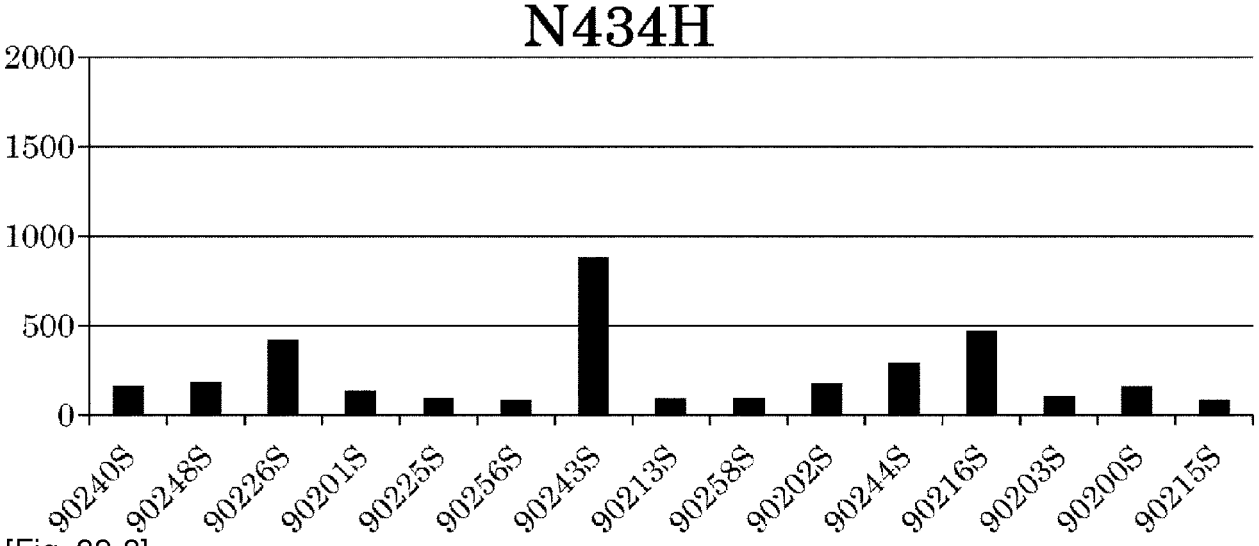
[Fig. 32-5]



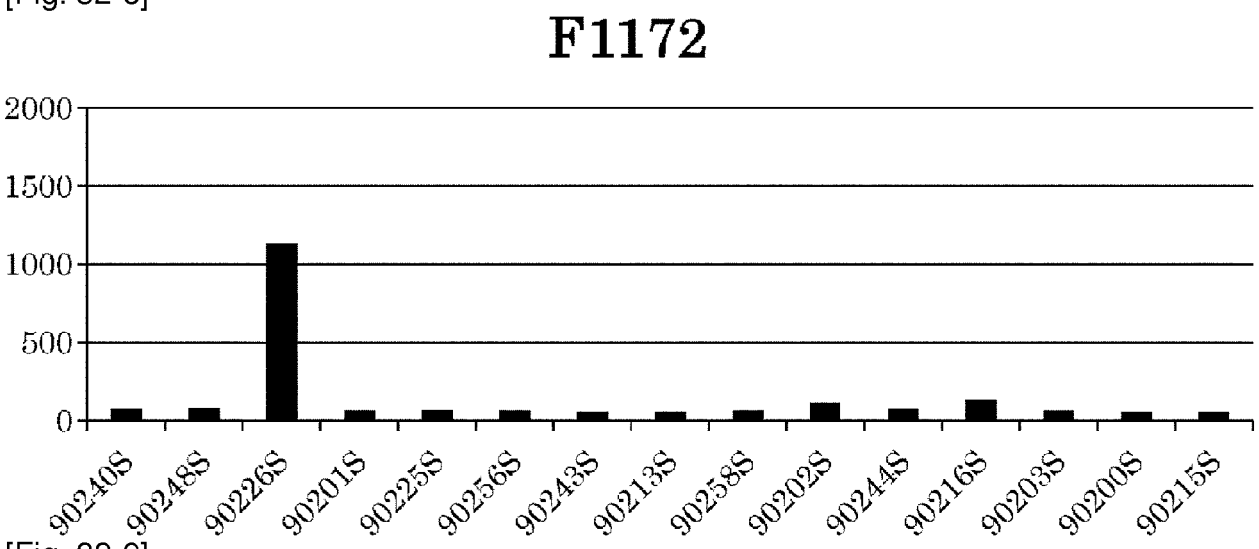
[Fig. 32-6]



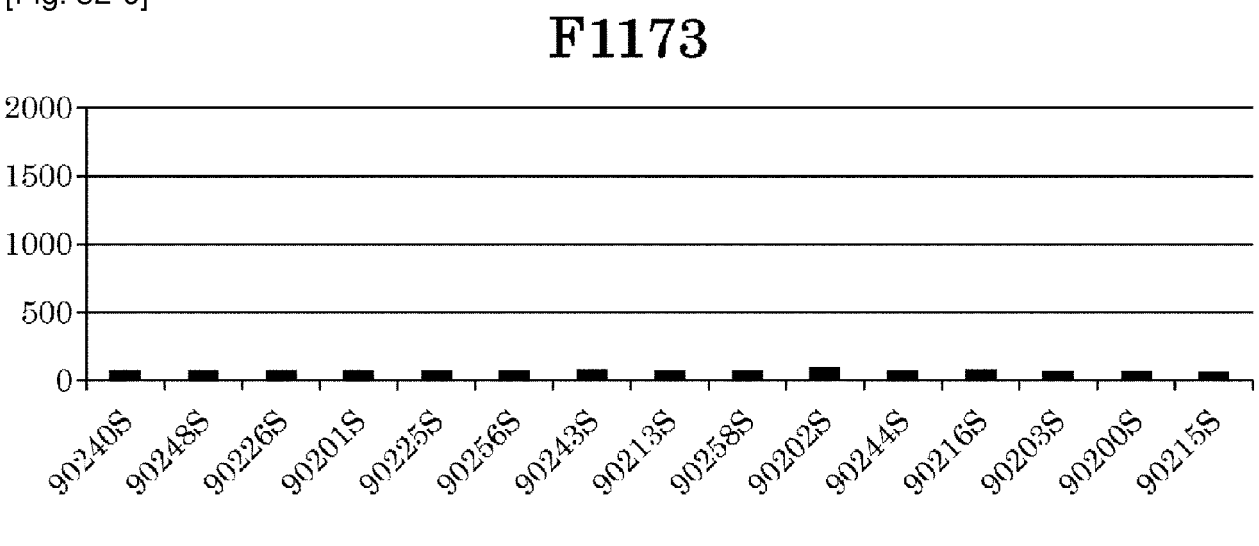
[Fig. 32-7]



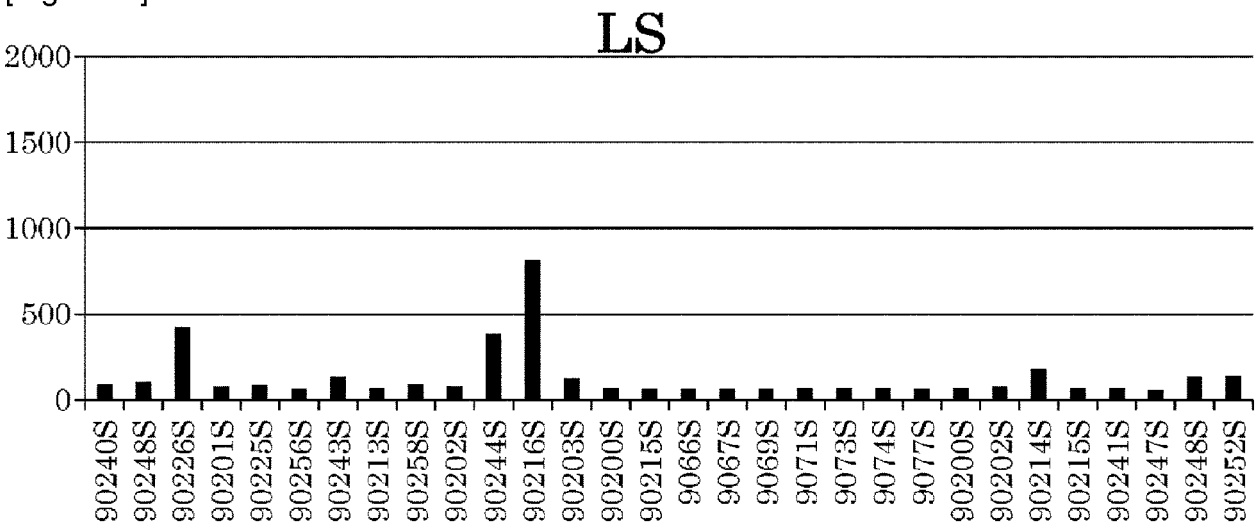
[Fig. 32-8]



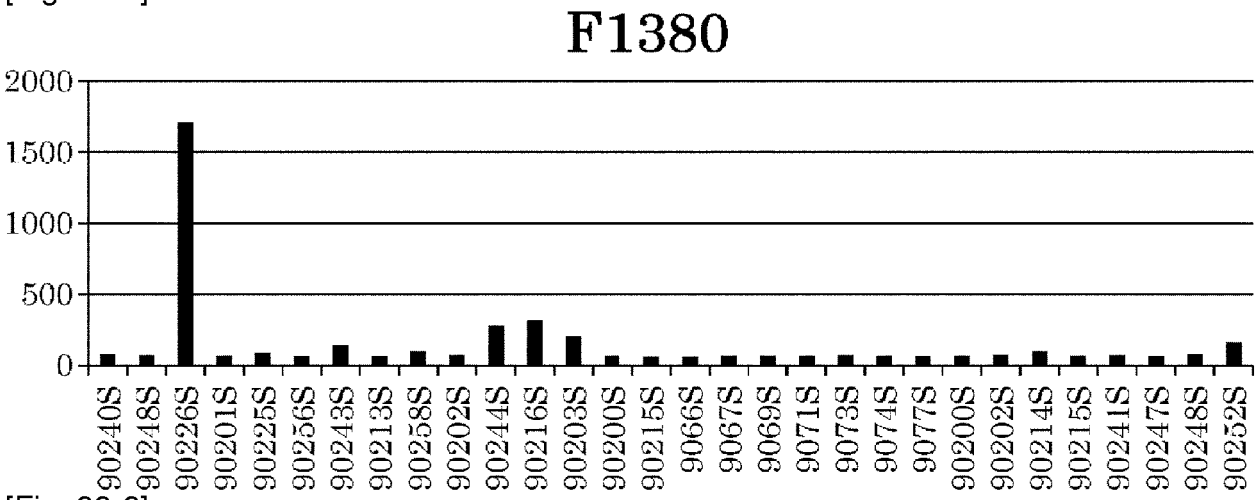
[Fig. 32-9]



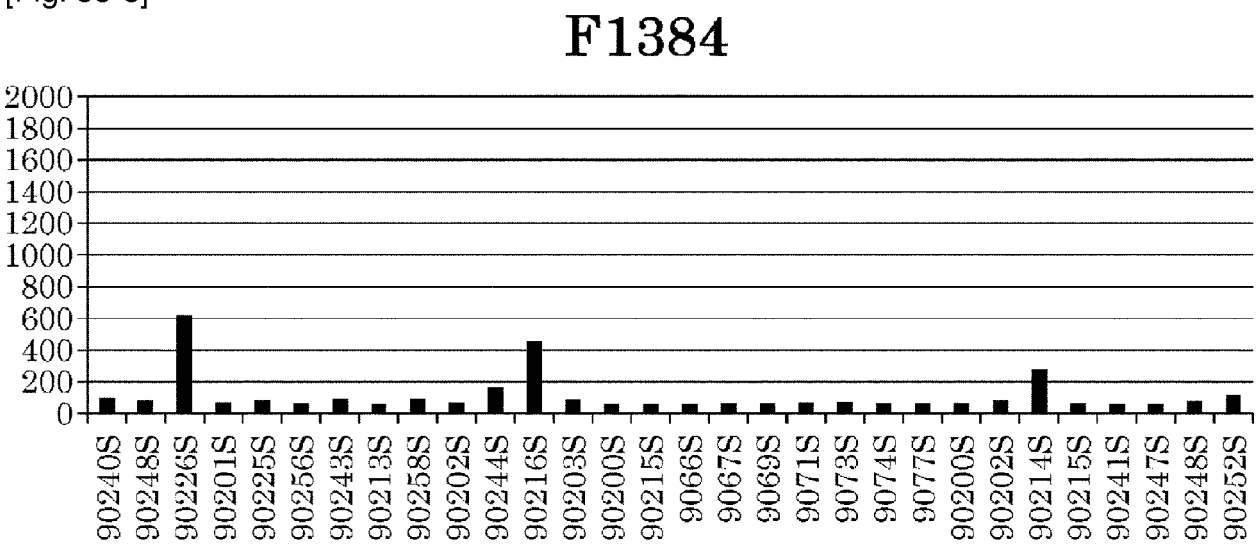
[Fig. 33-1]



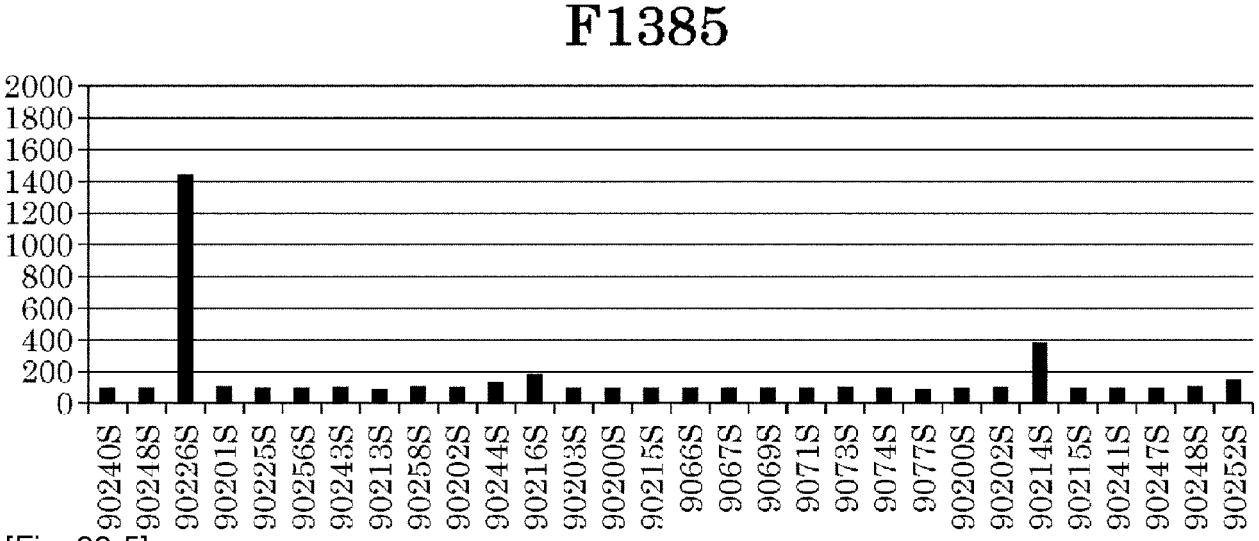
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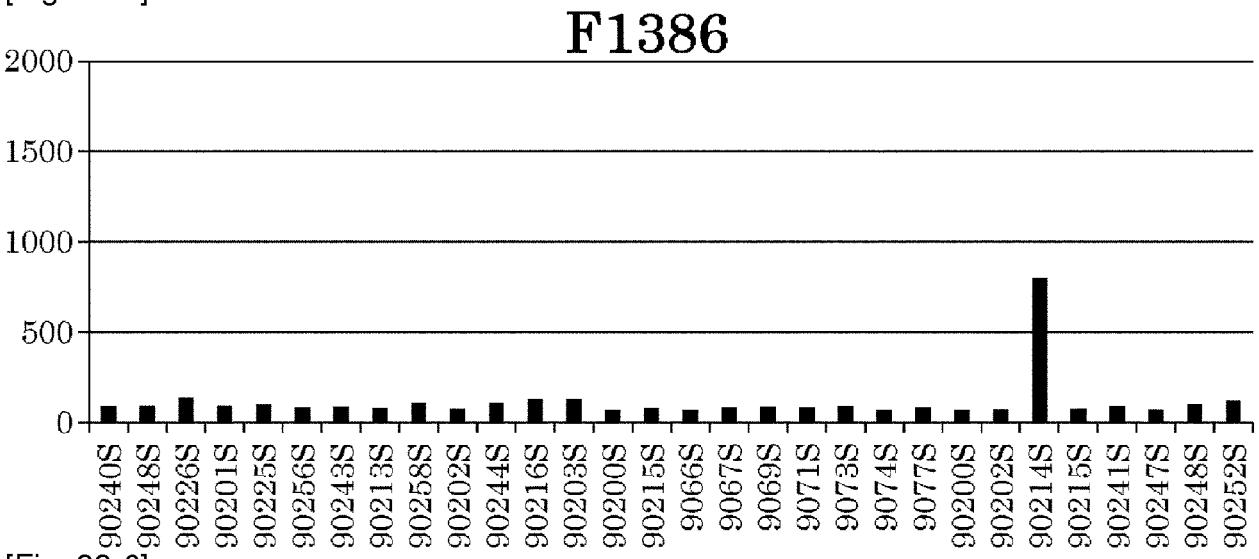
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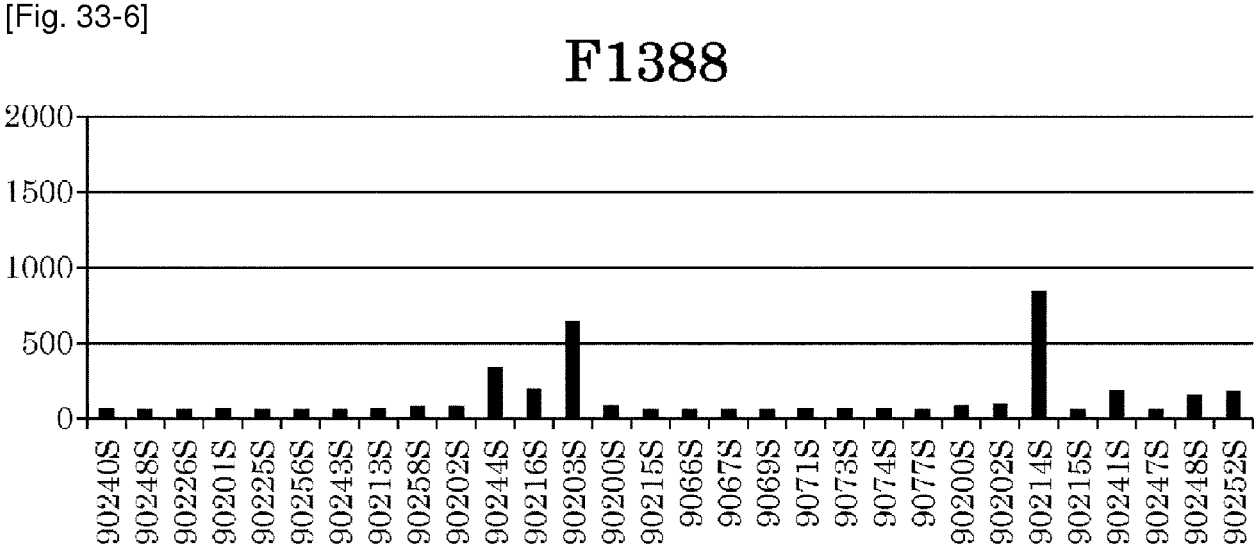
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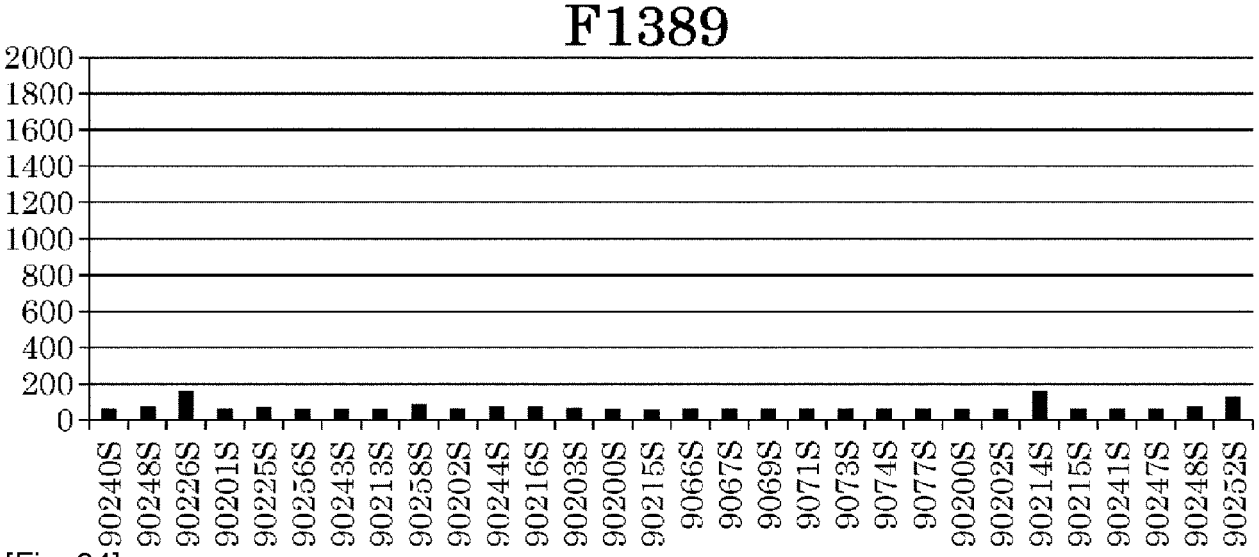
[Fig. 33-5]



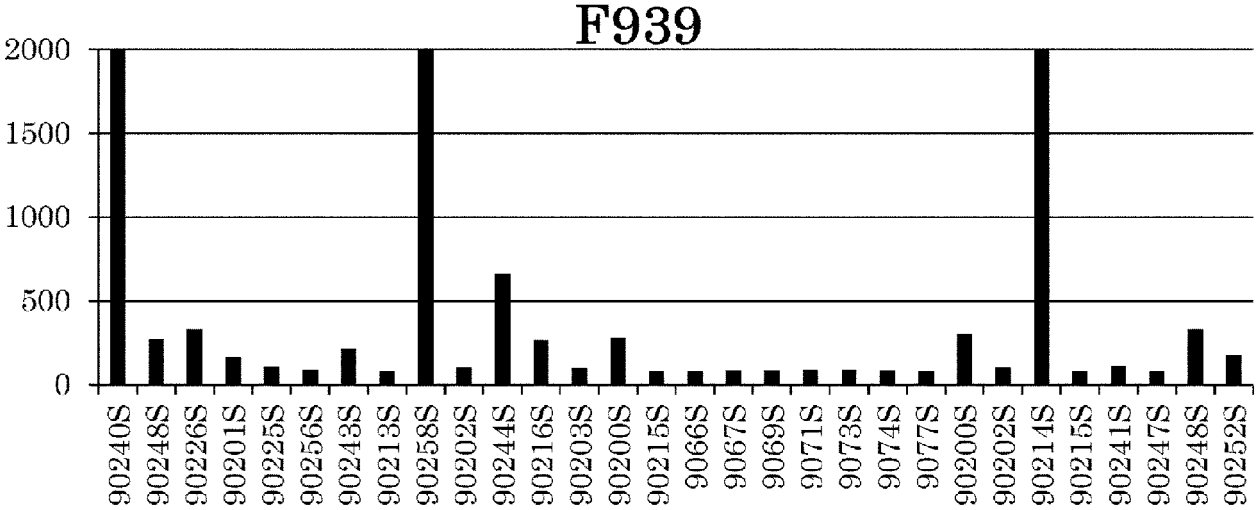
[Fig. 33-6]



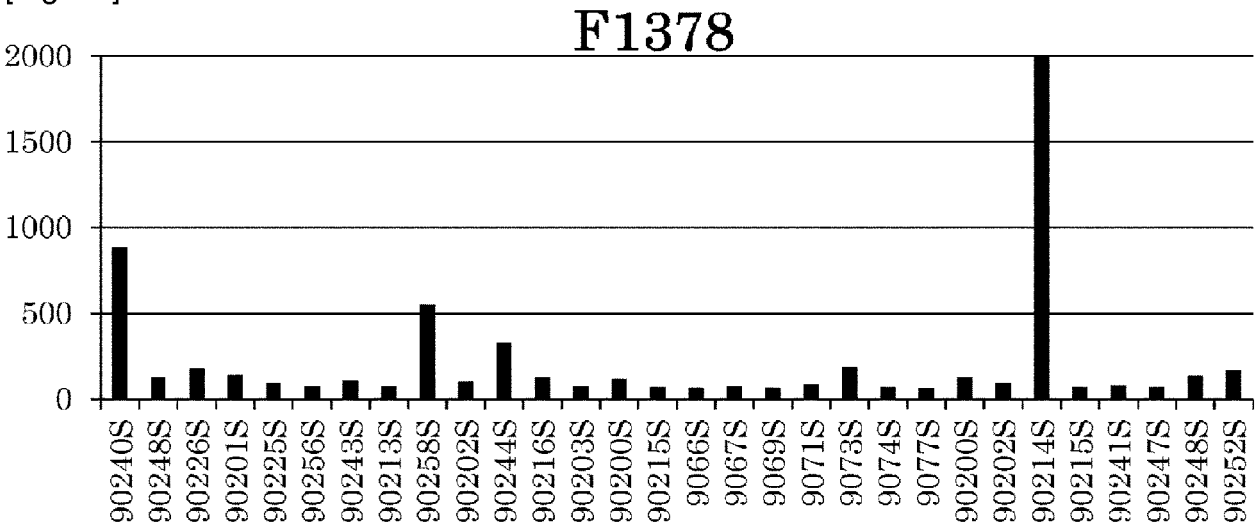
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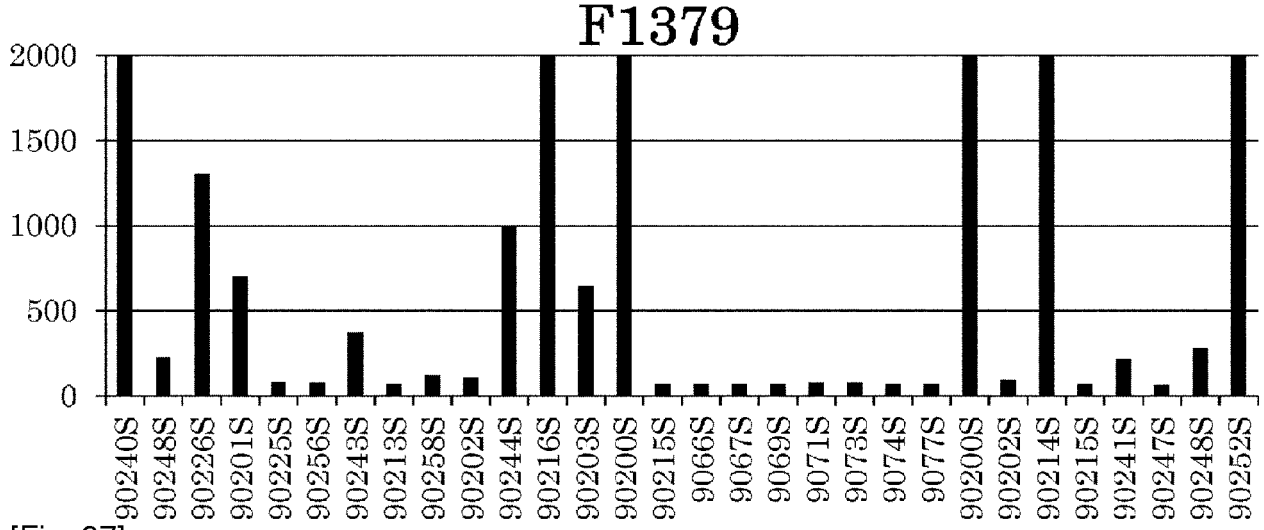
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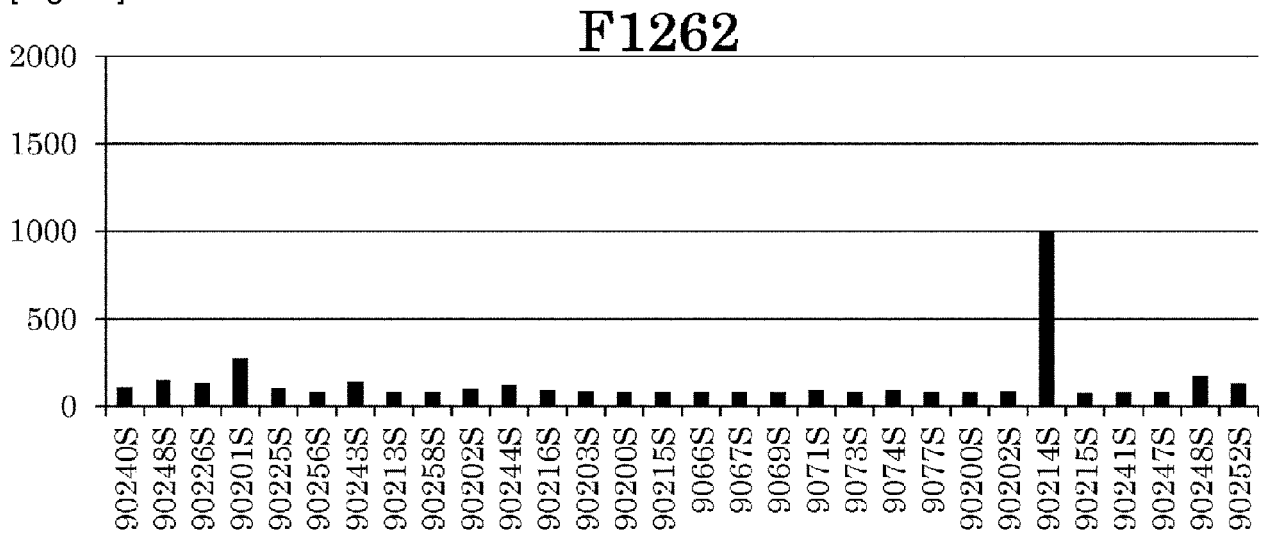
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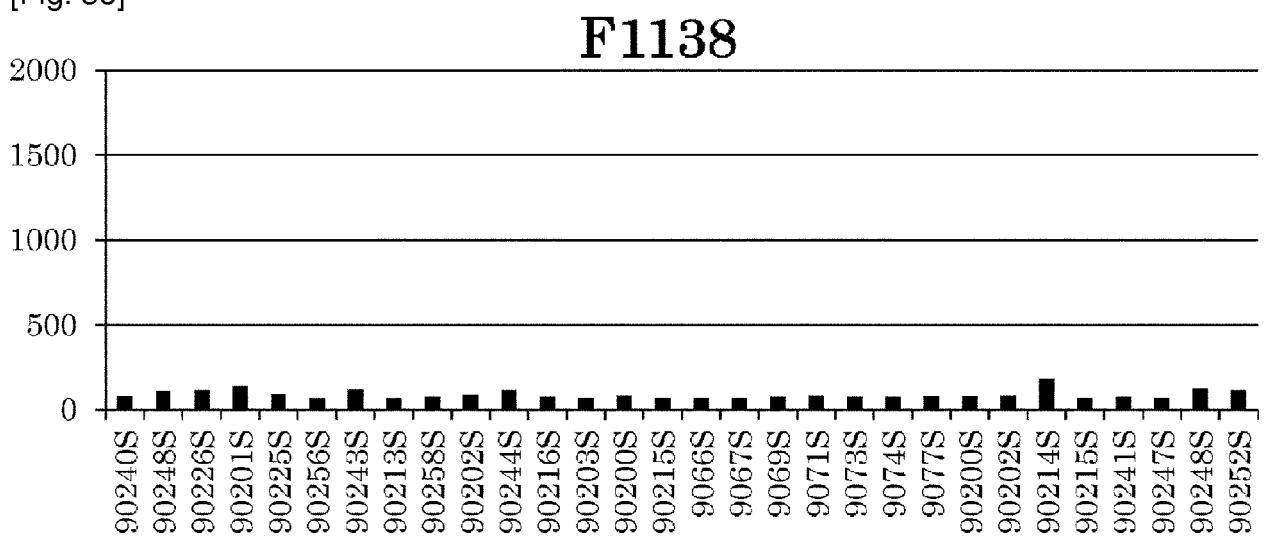
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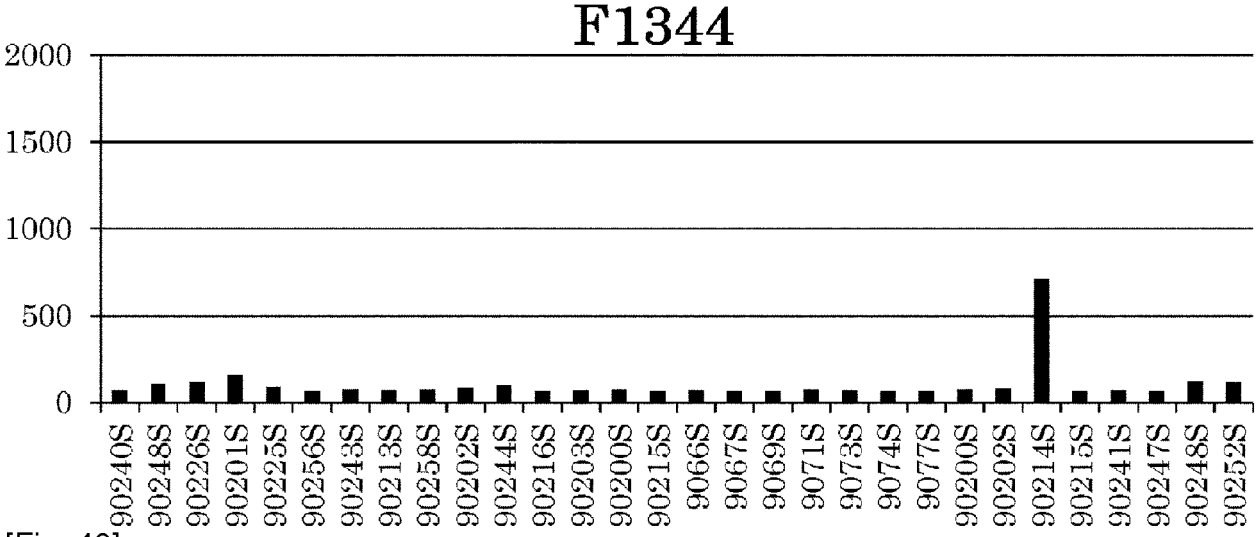
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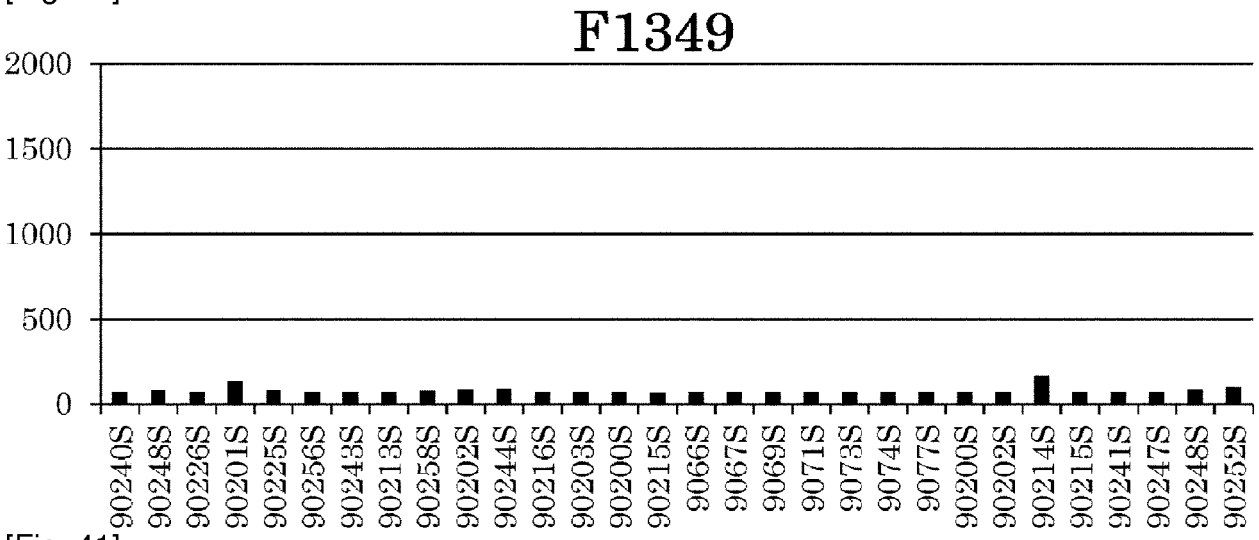
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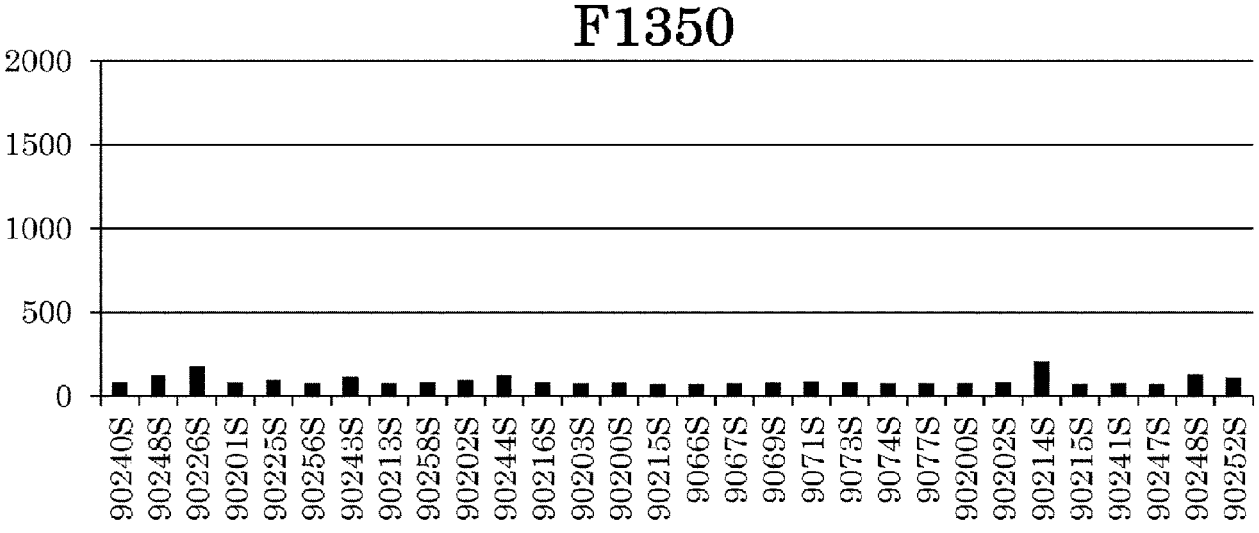
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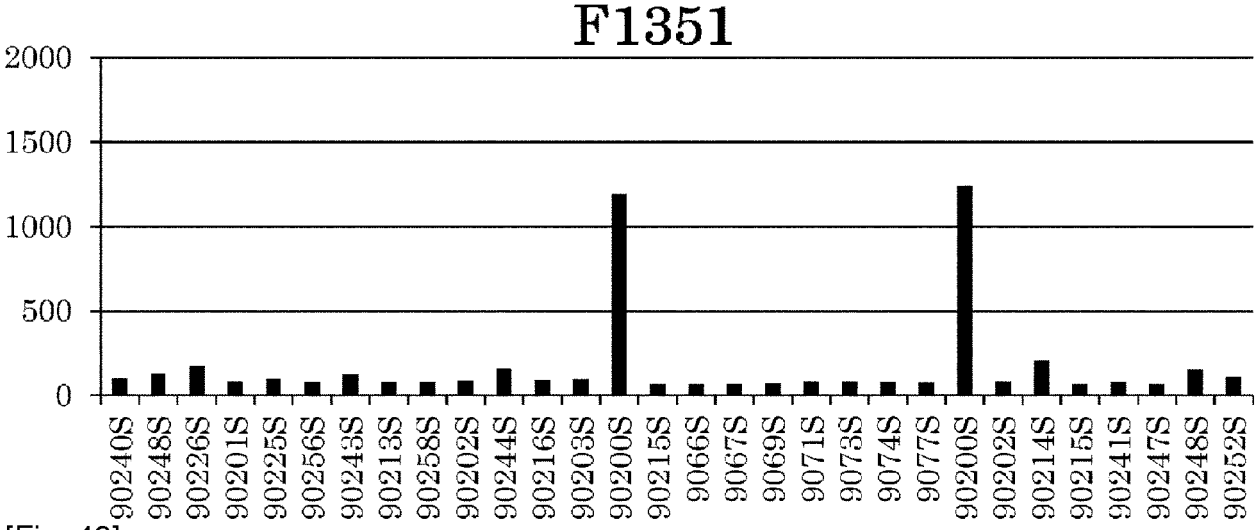
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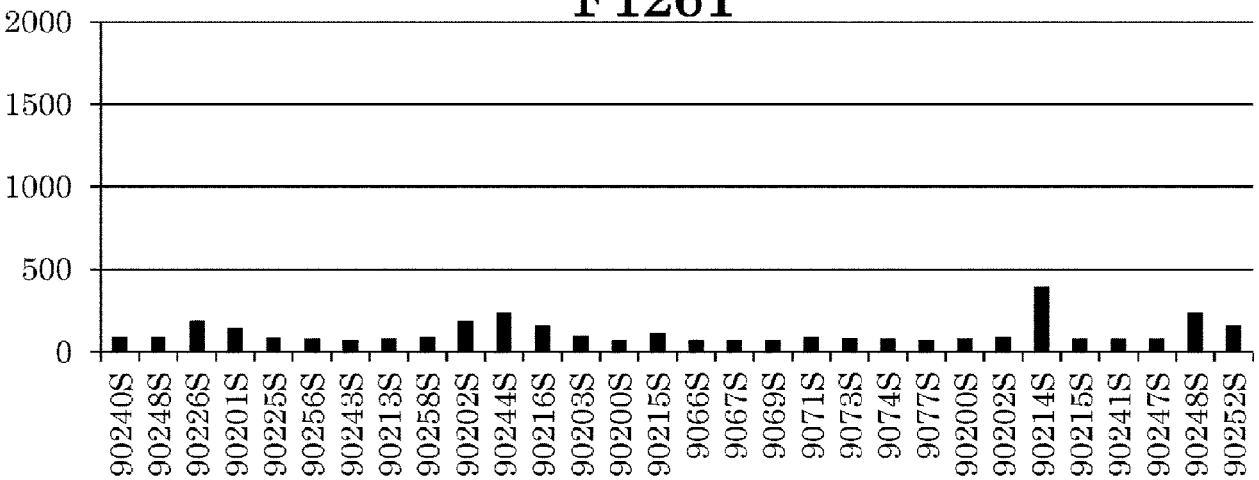
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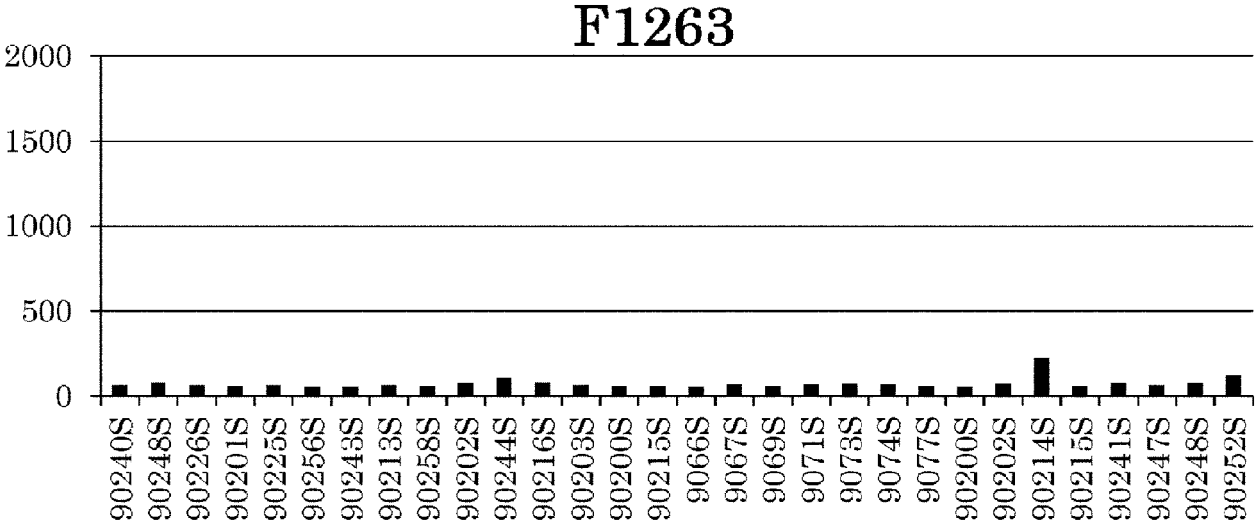
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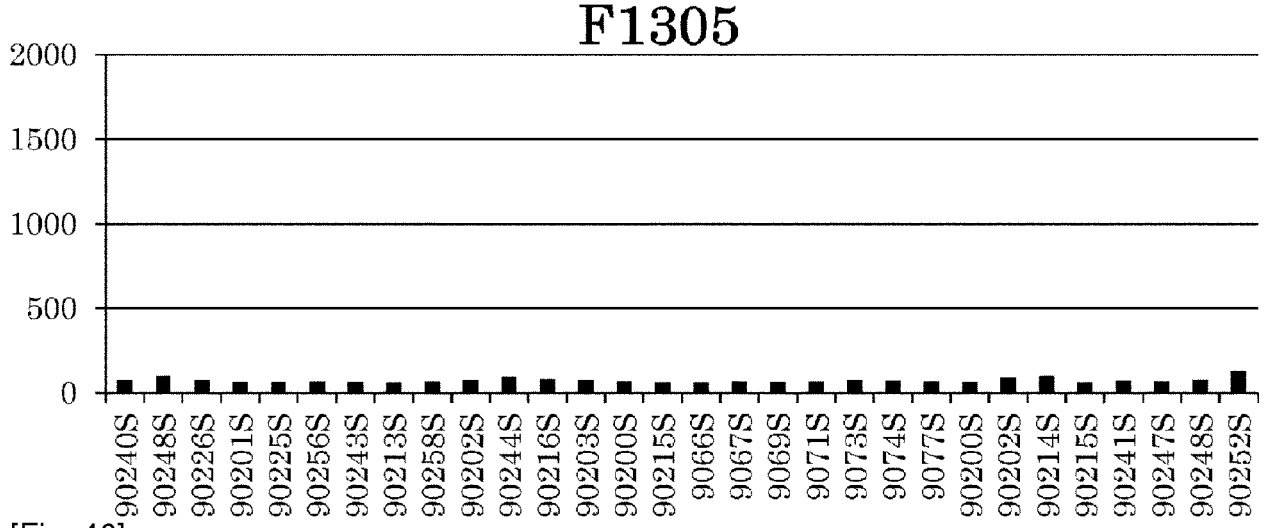
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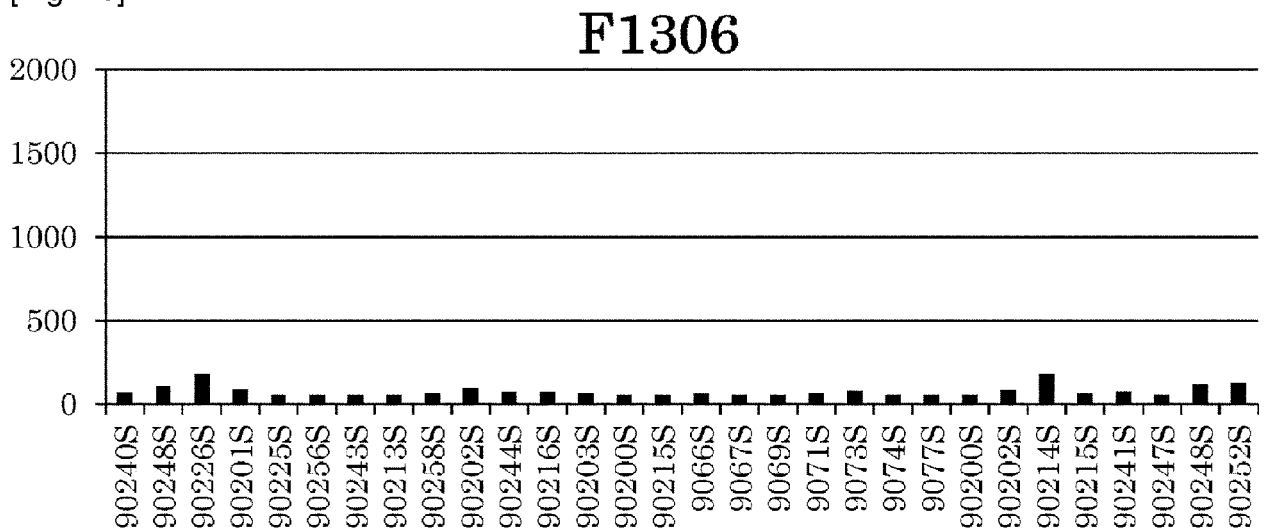
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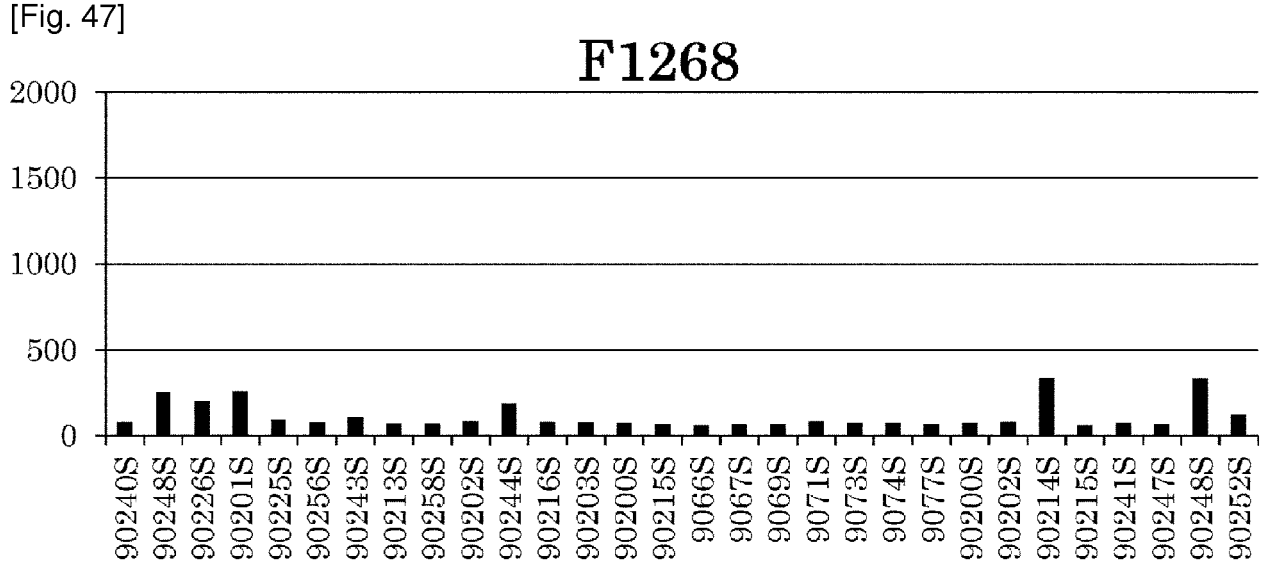
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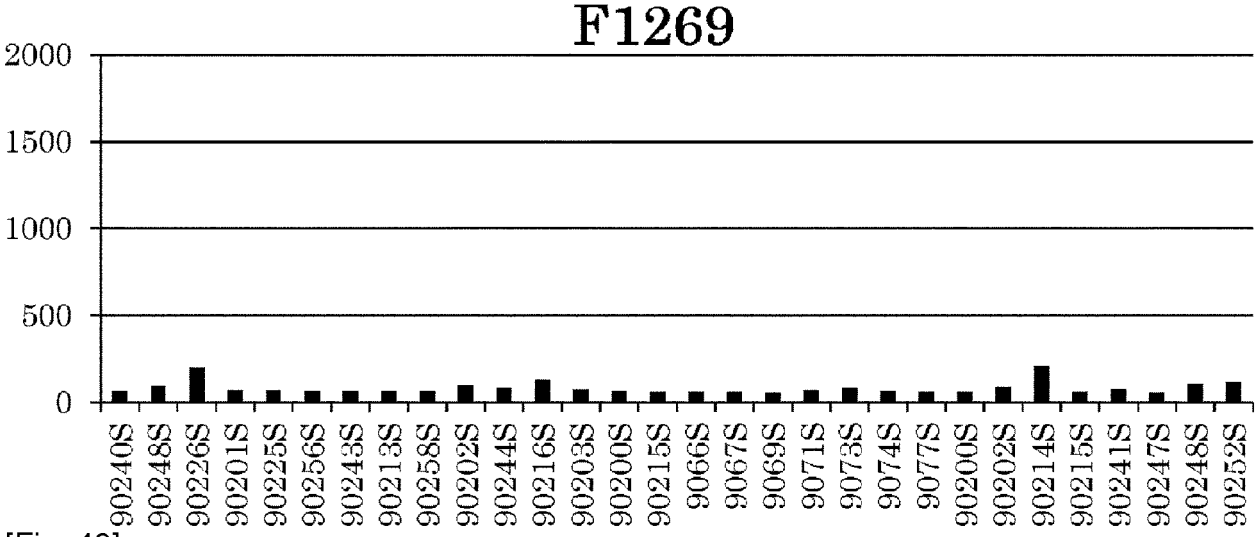
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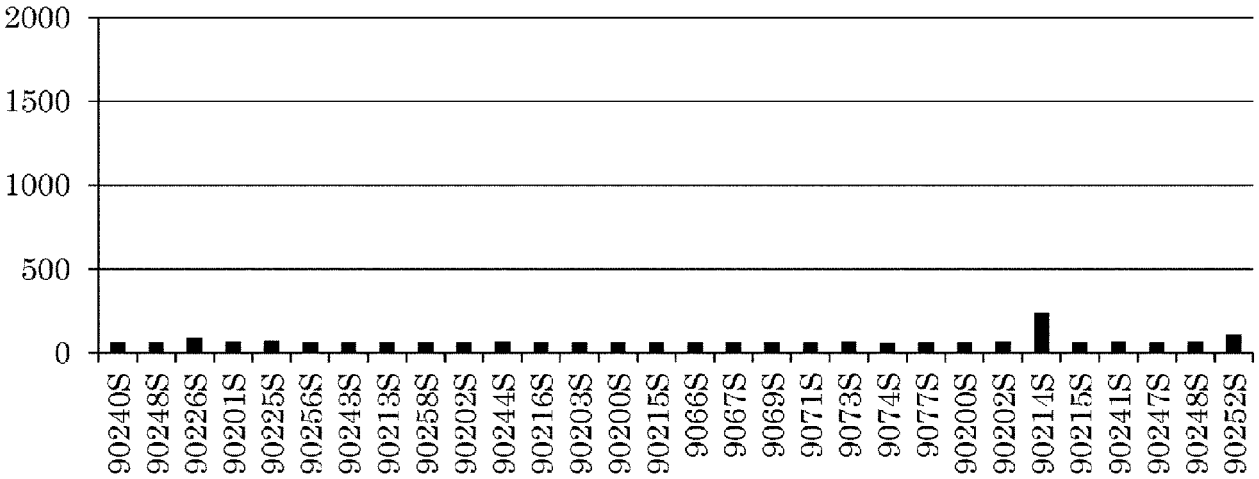
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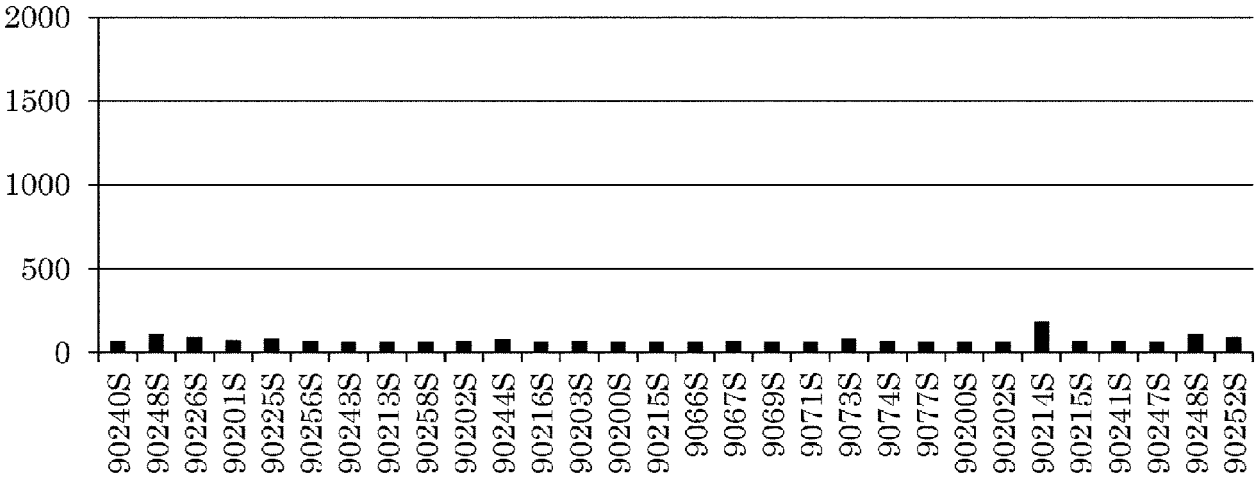
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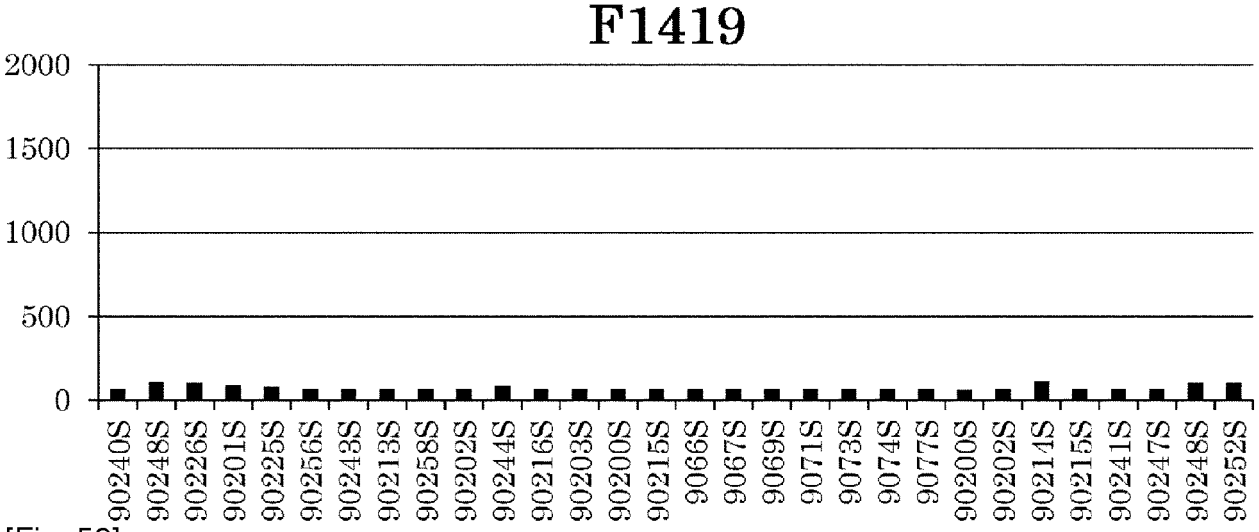
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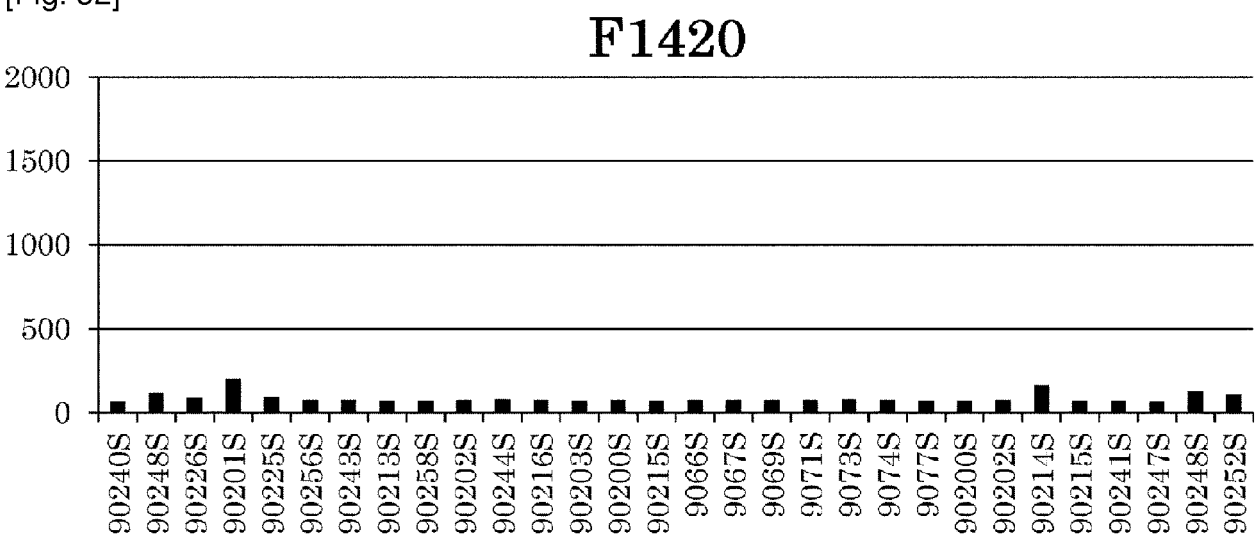
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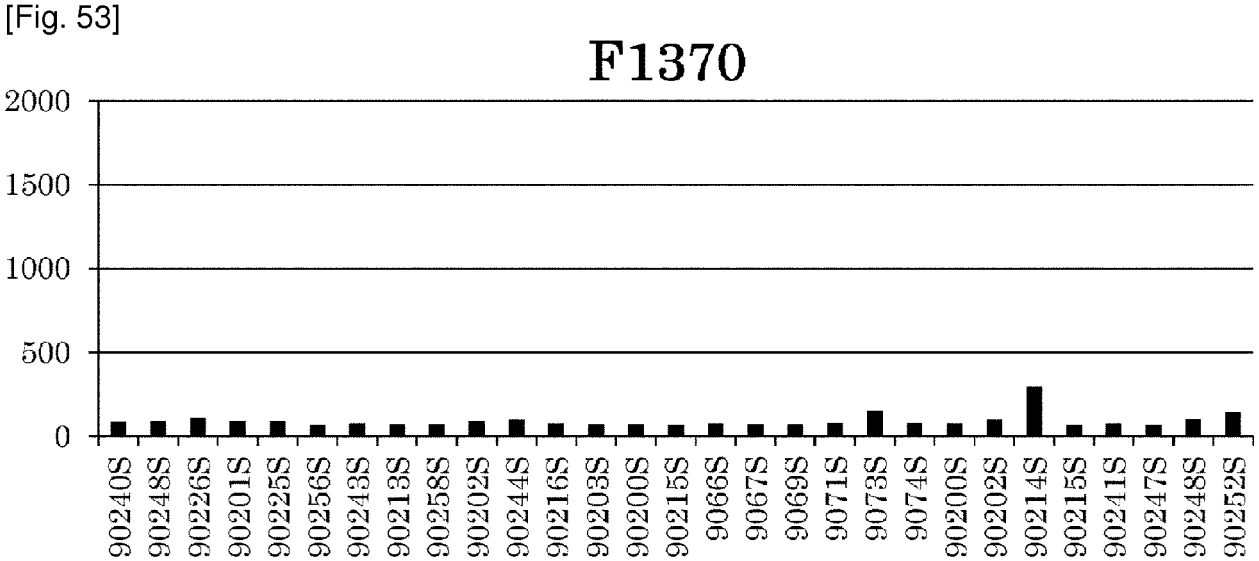
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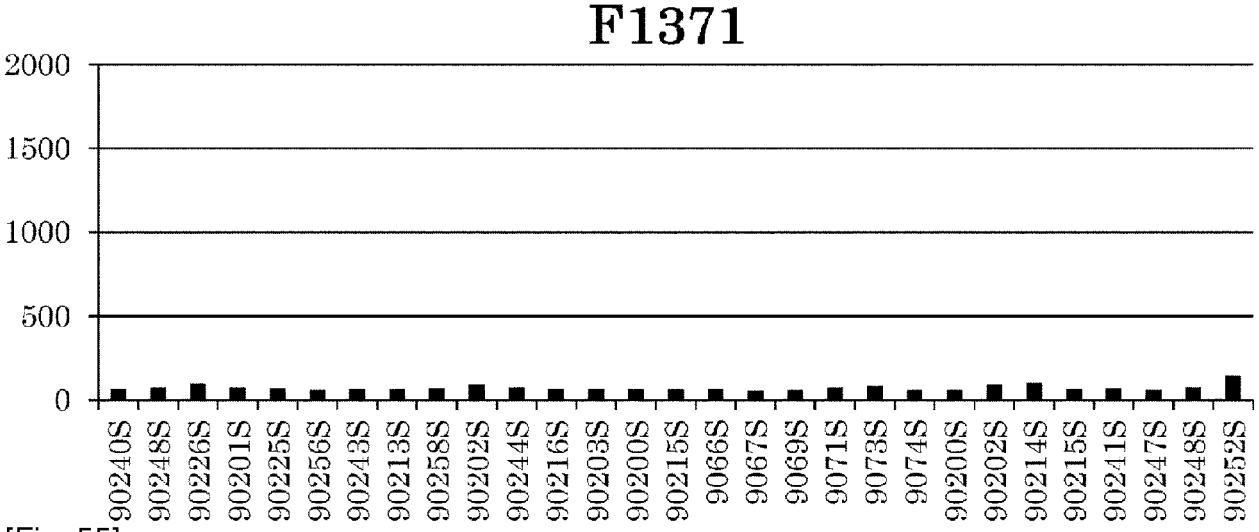
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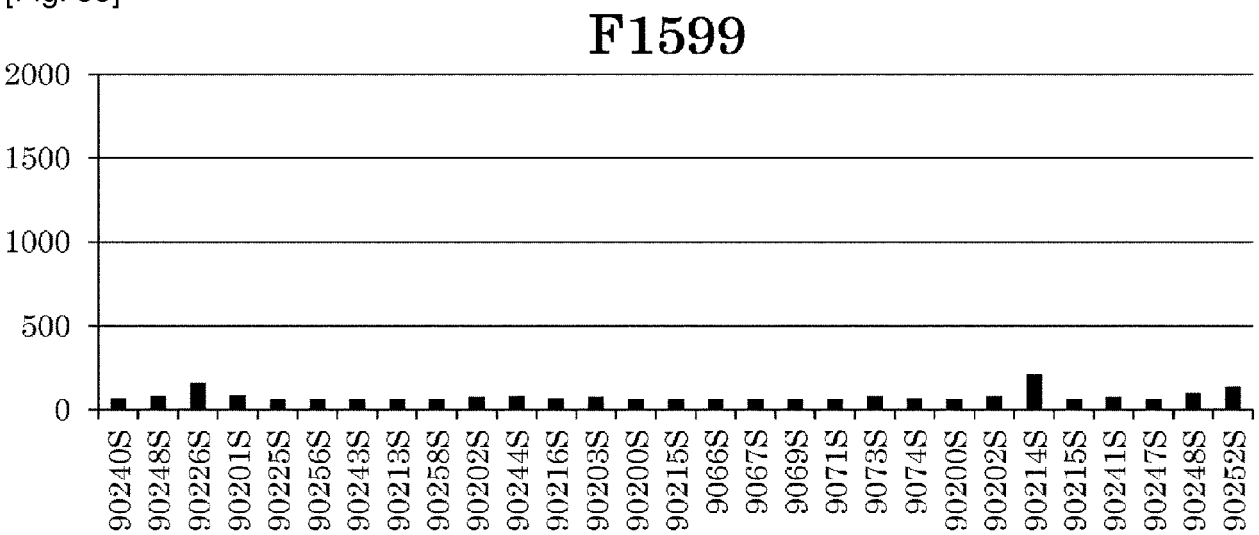
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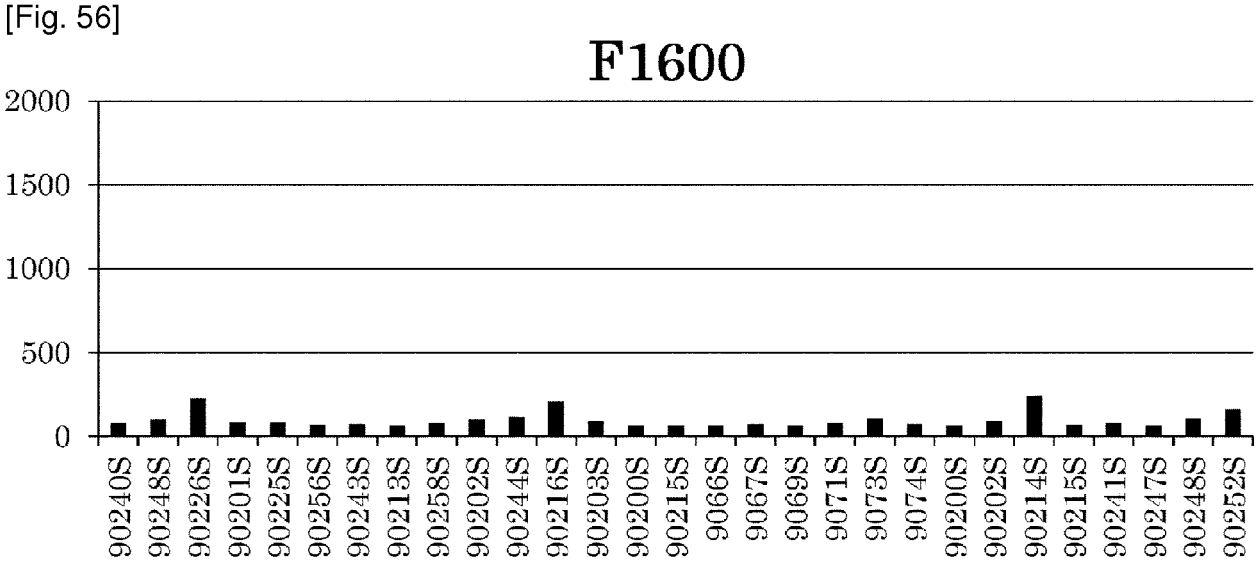
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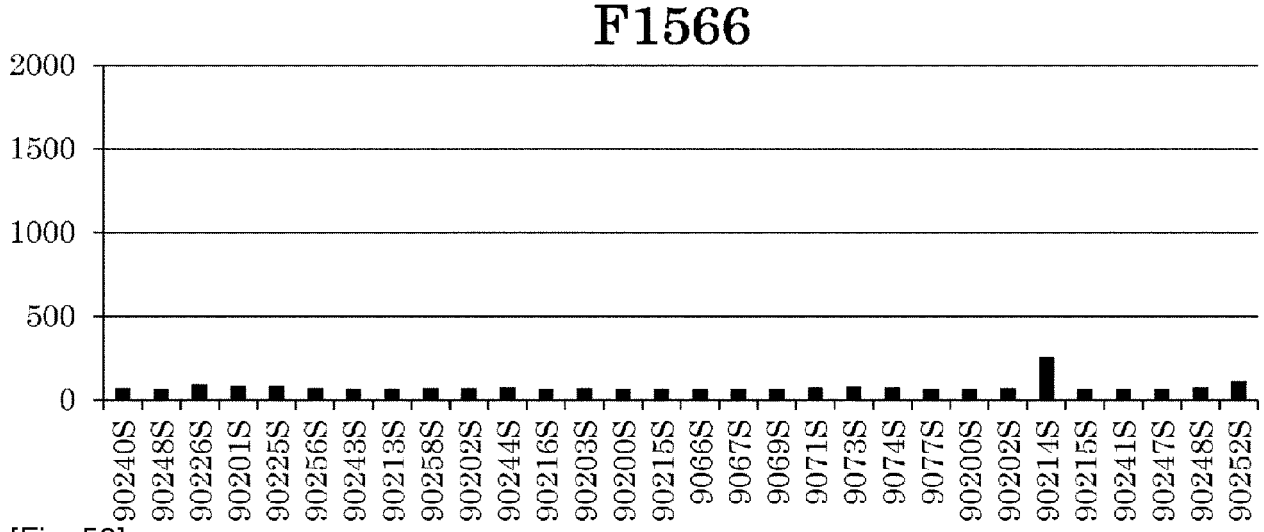
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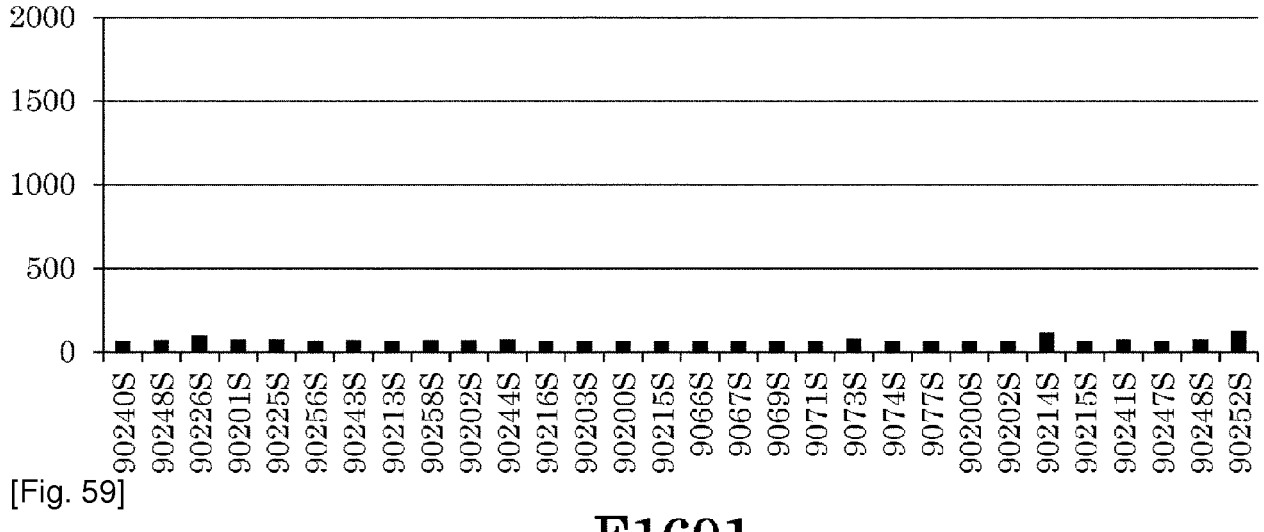
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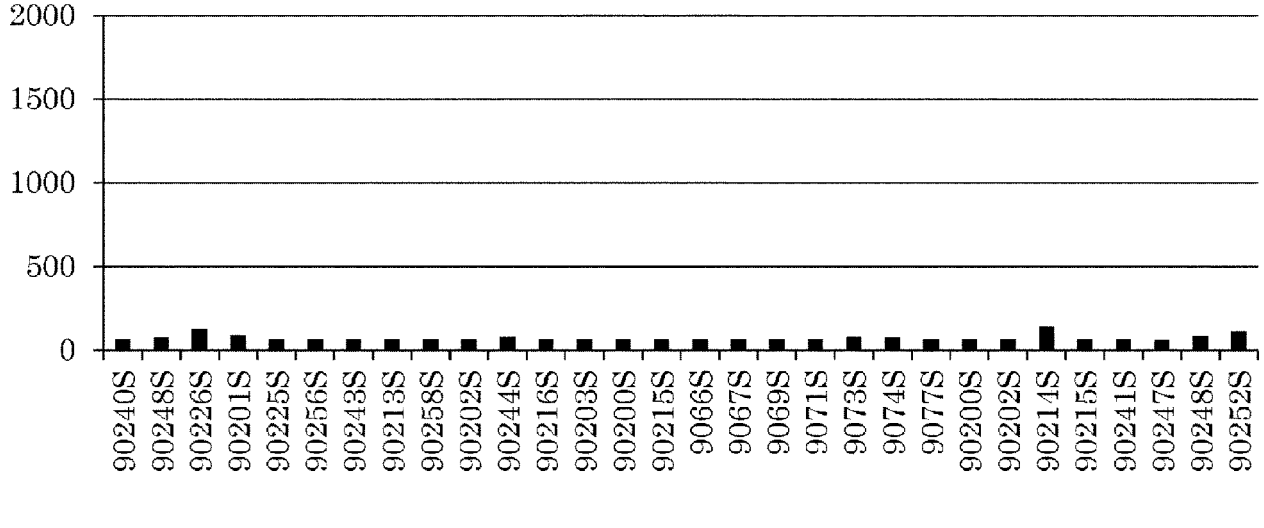
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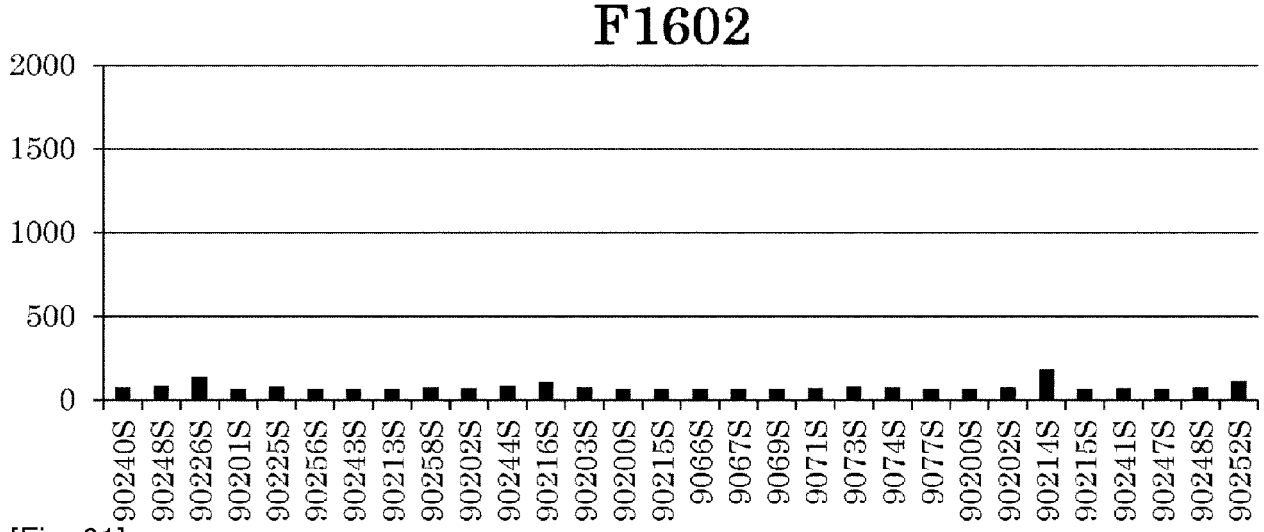
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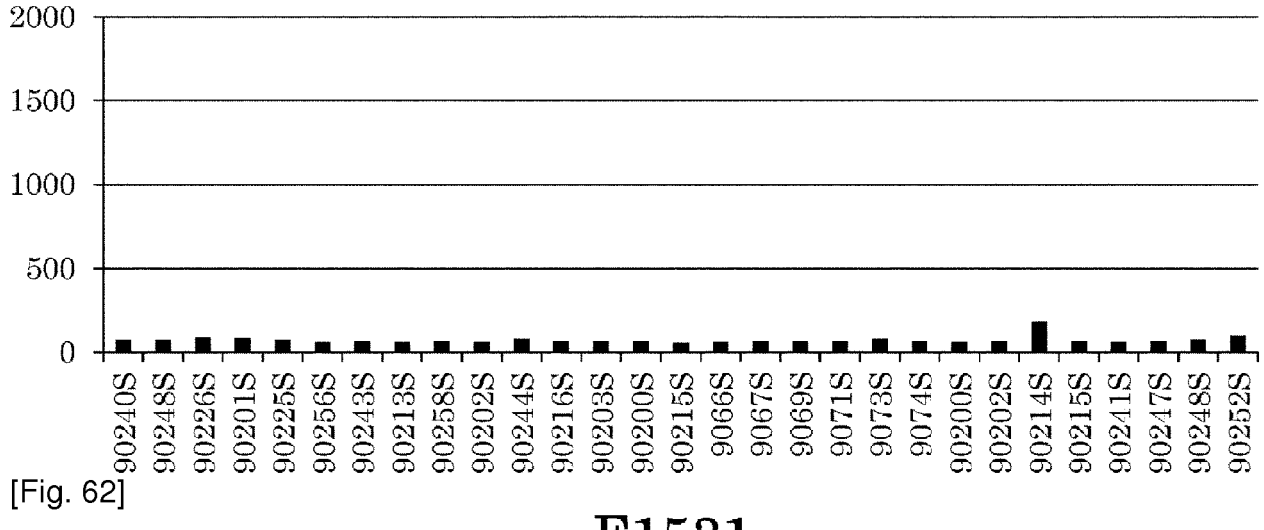
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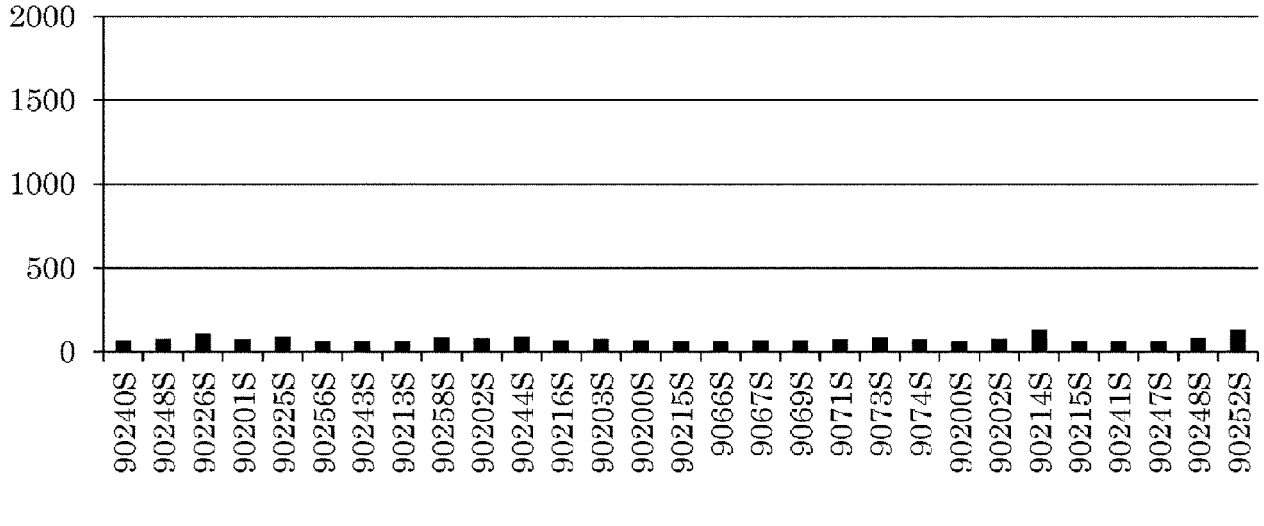
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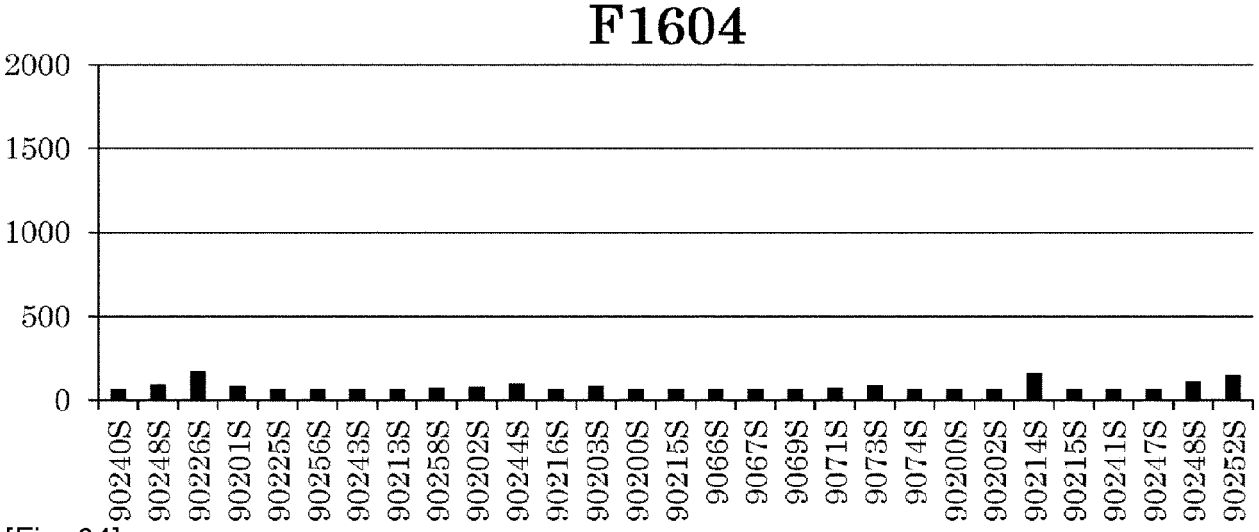
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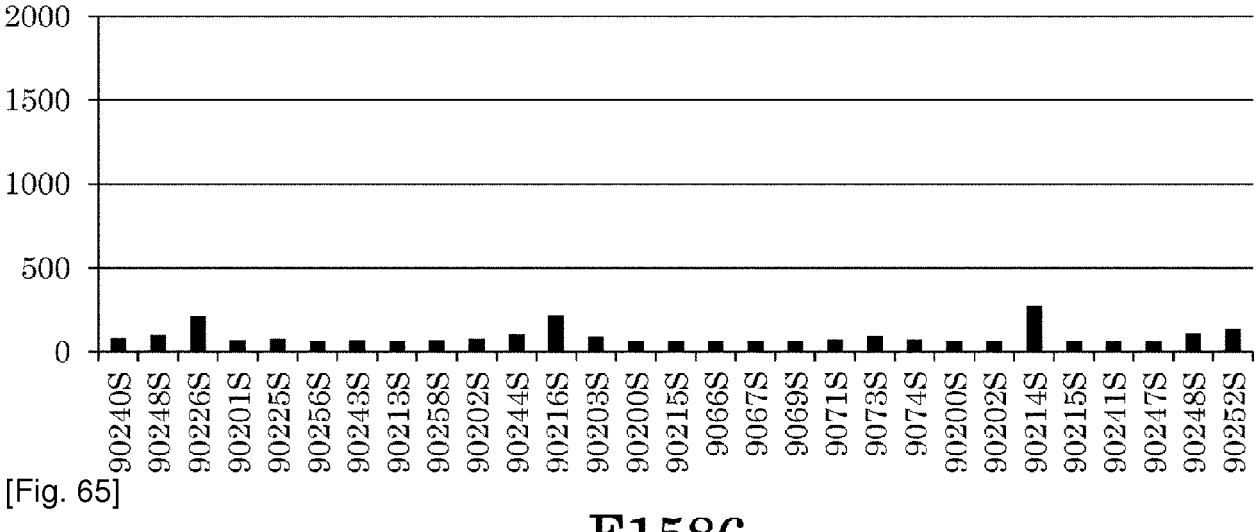
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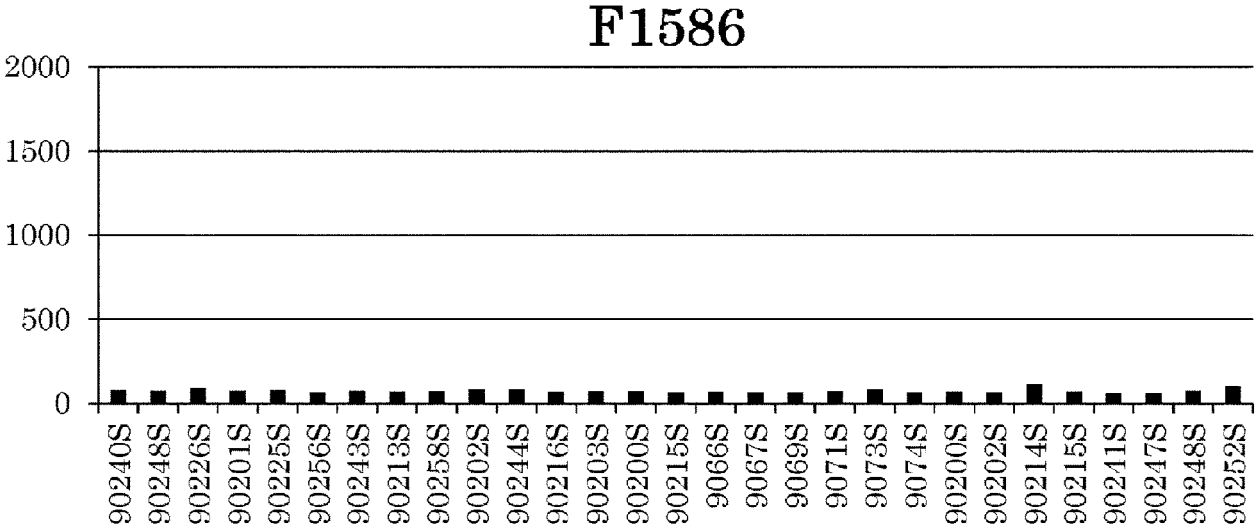
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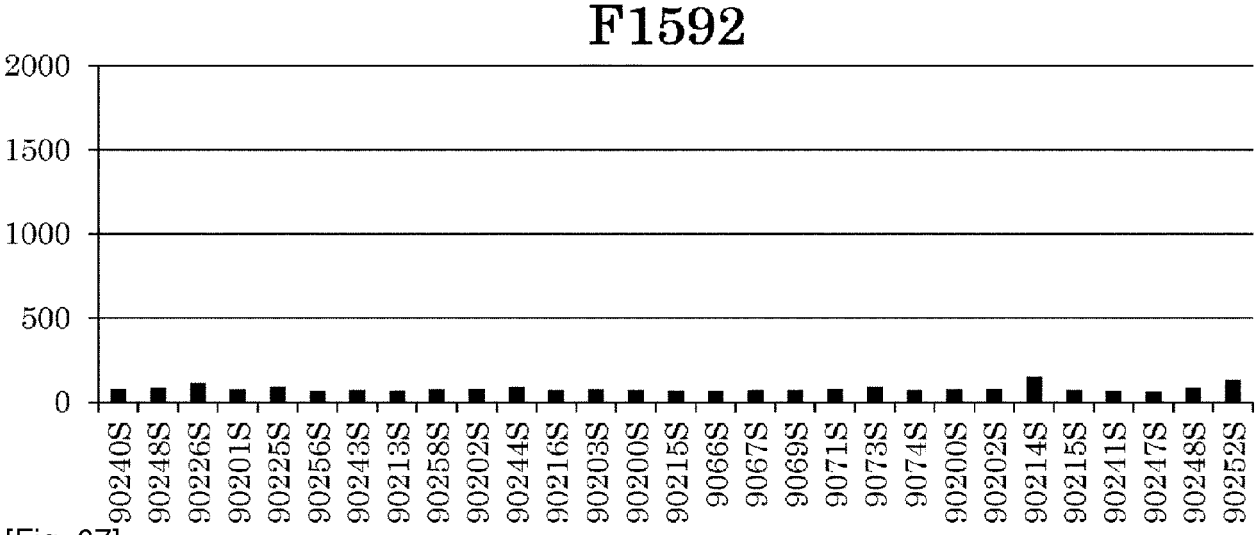
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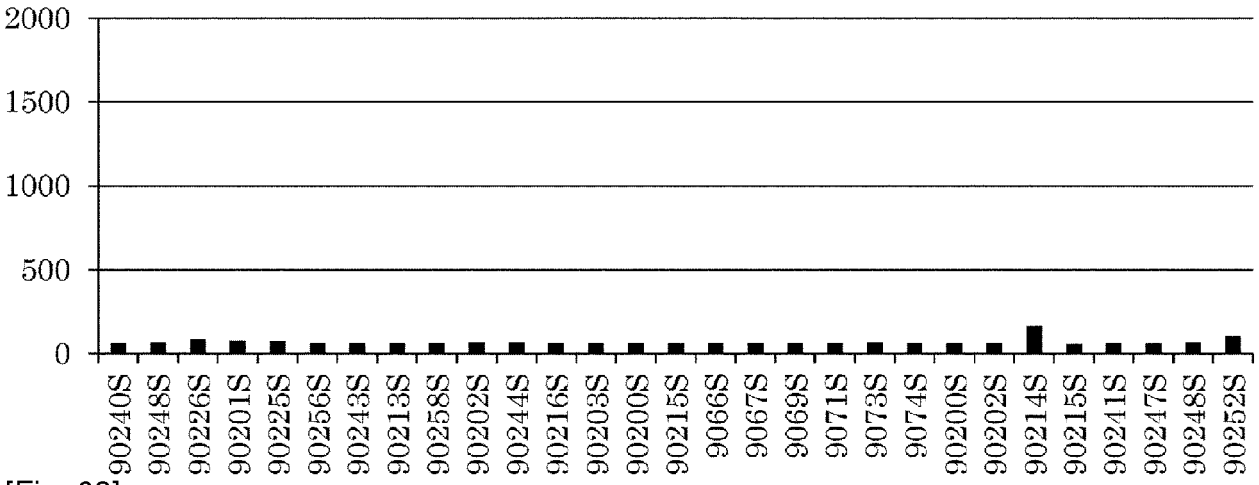
[Fig. 65]



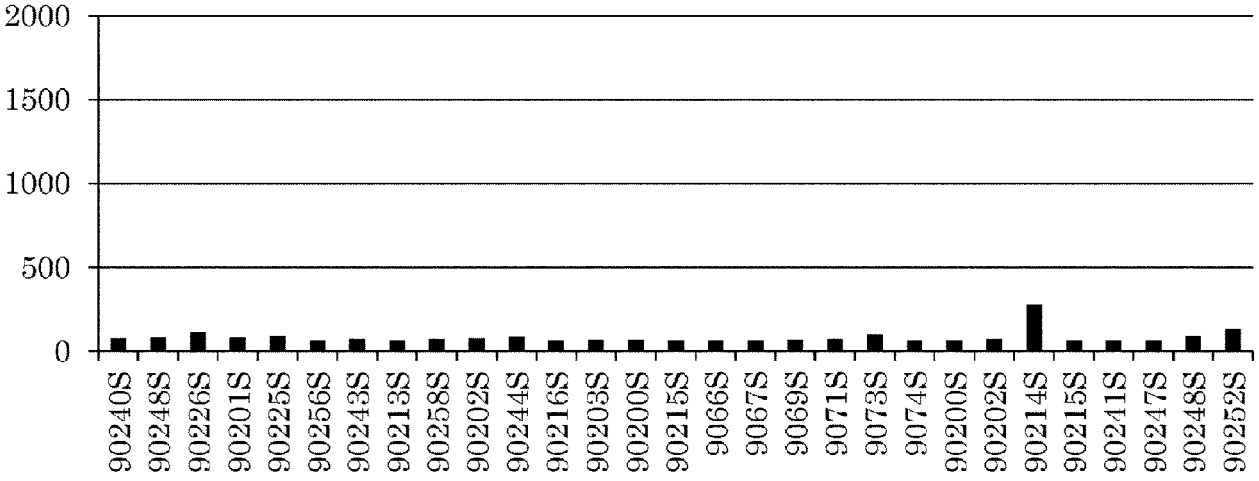
[Fig. 66]



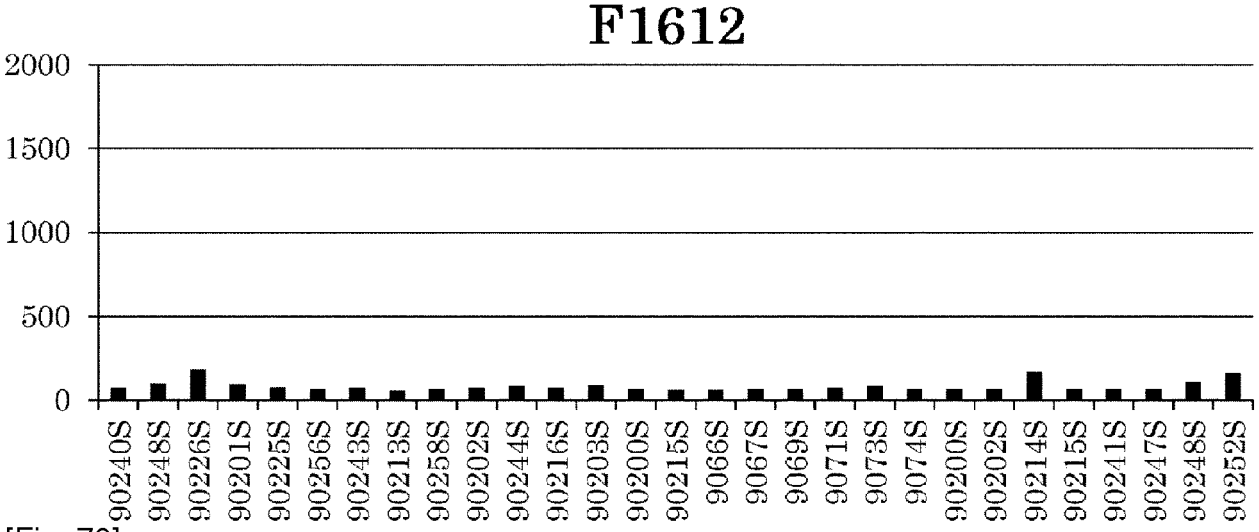
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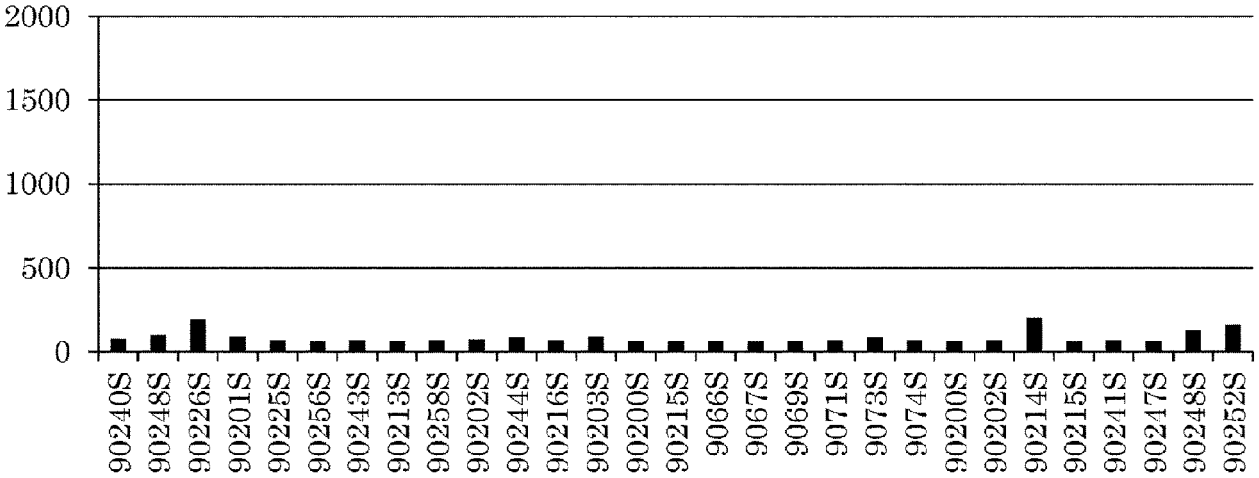
[Fig. 68]



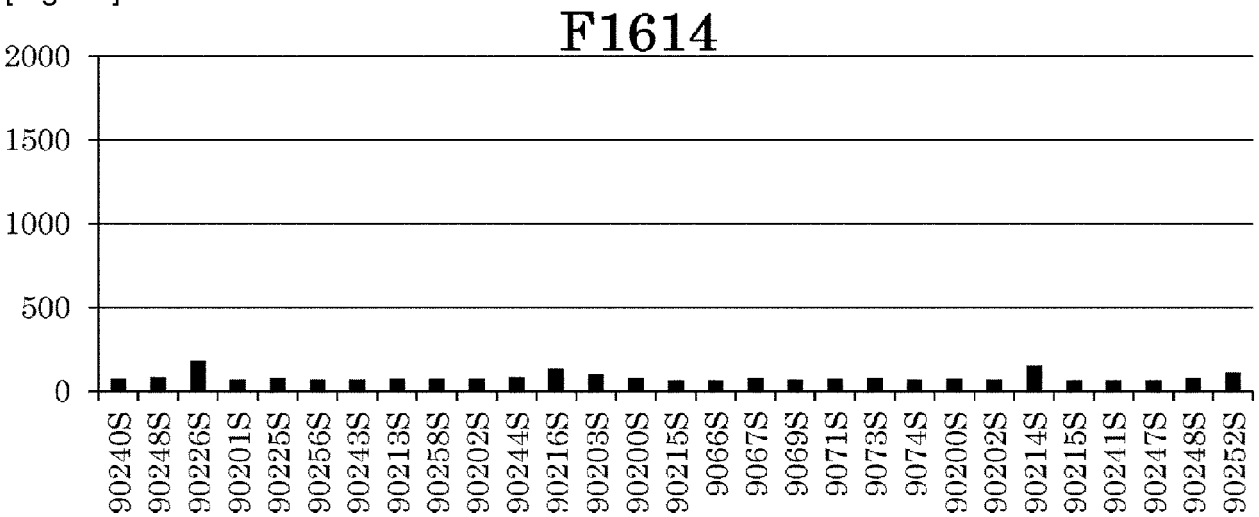
[Fig. 69]



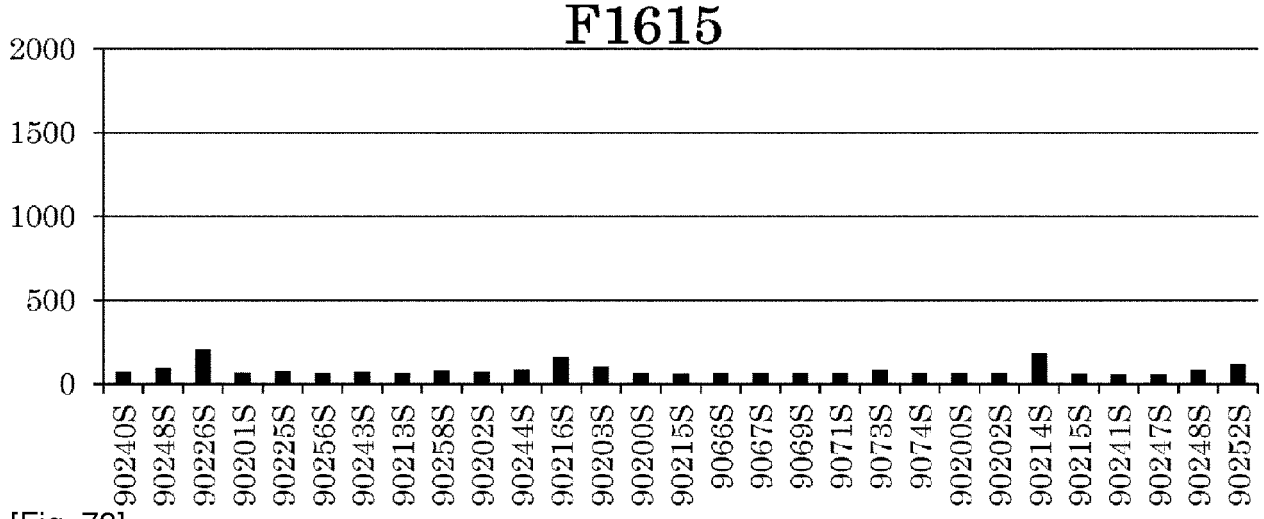
[Fig. 70]



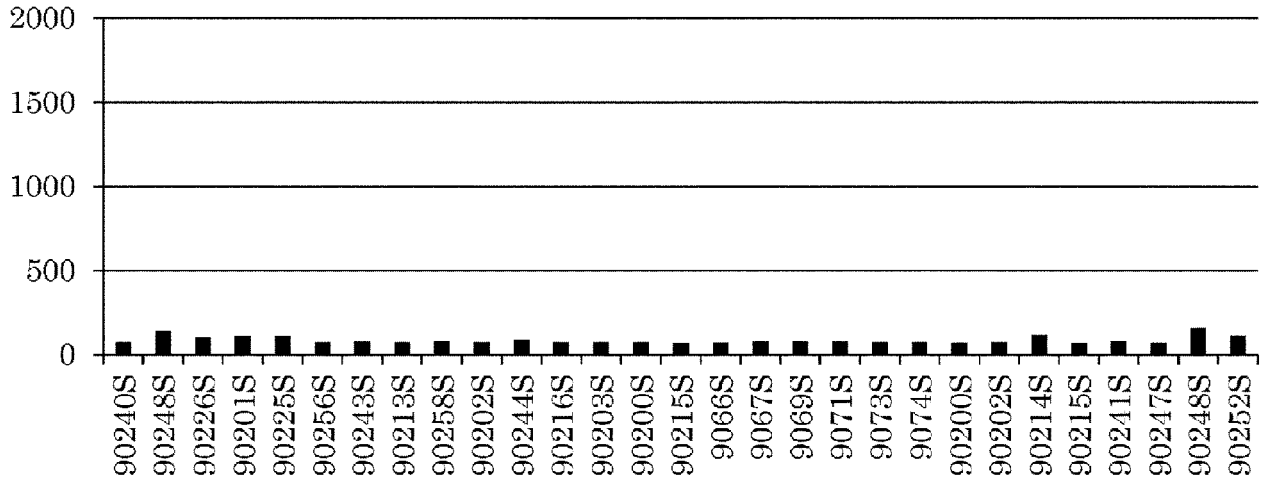
[Fig. 71]



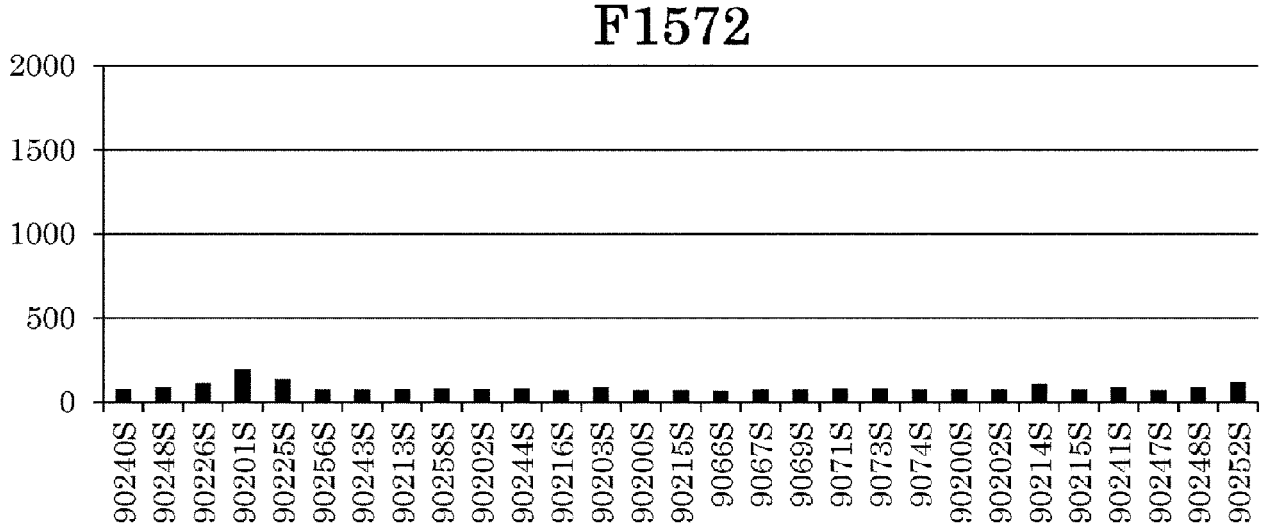
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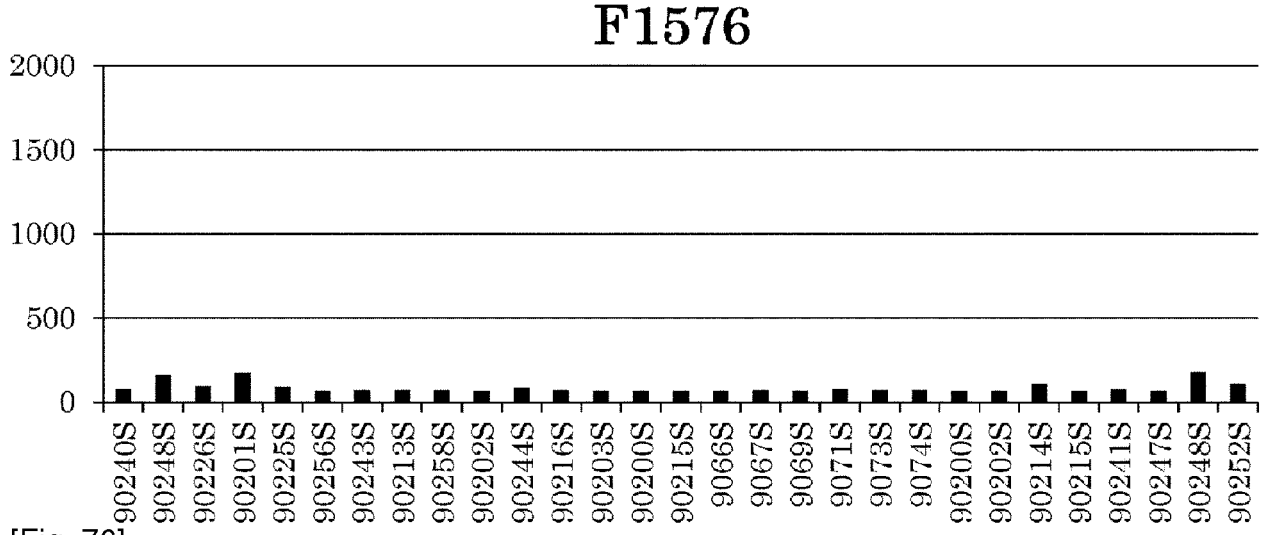
[Fig. 73]



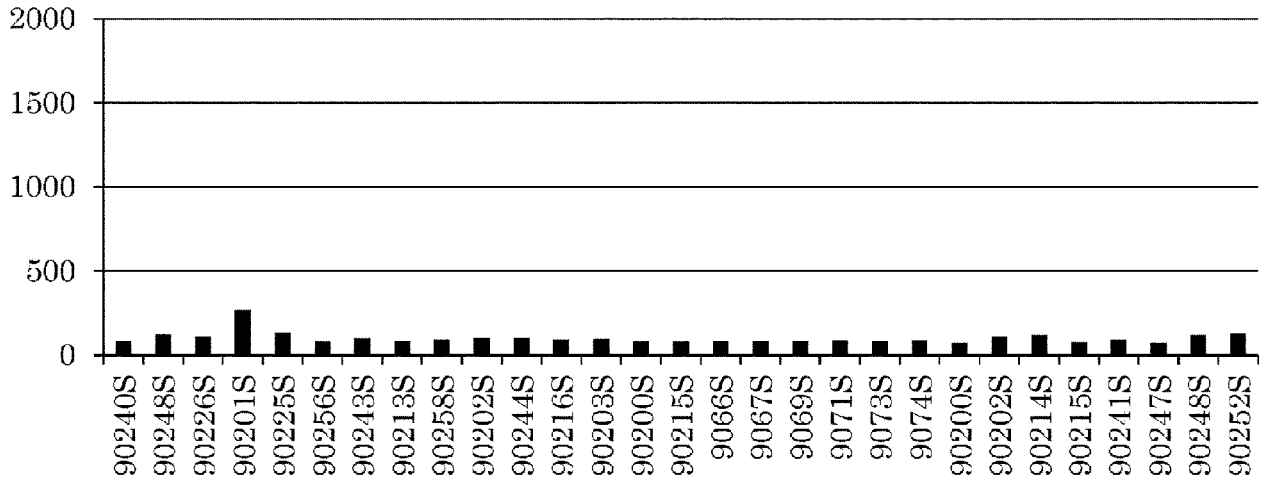
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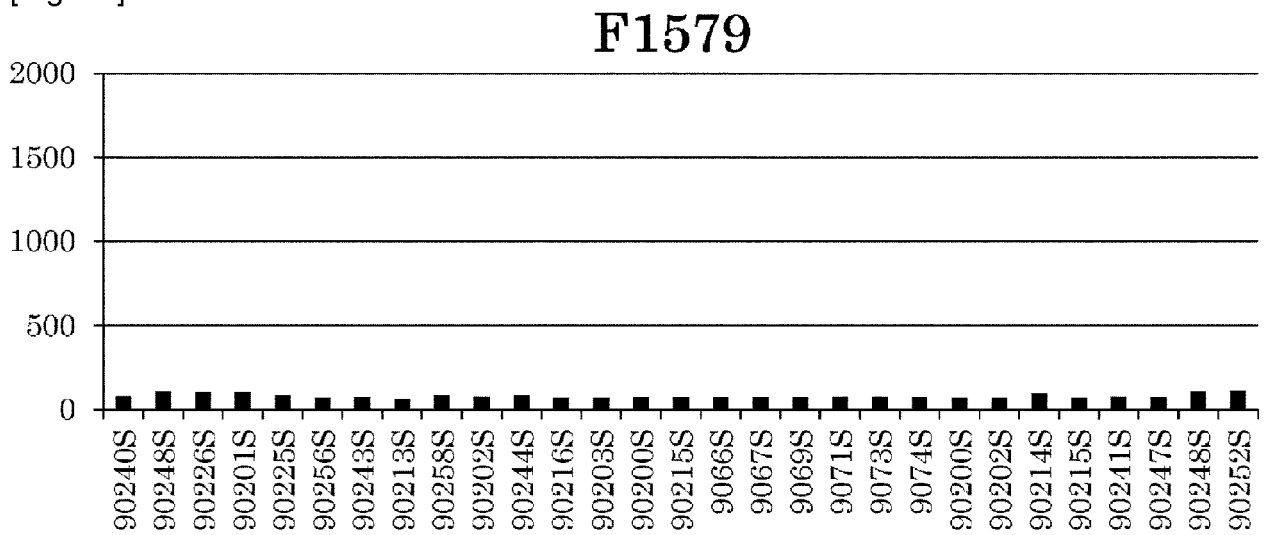
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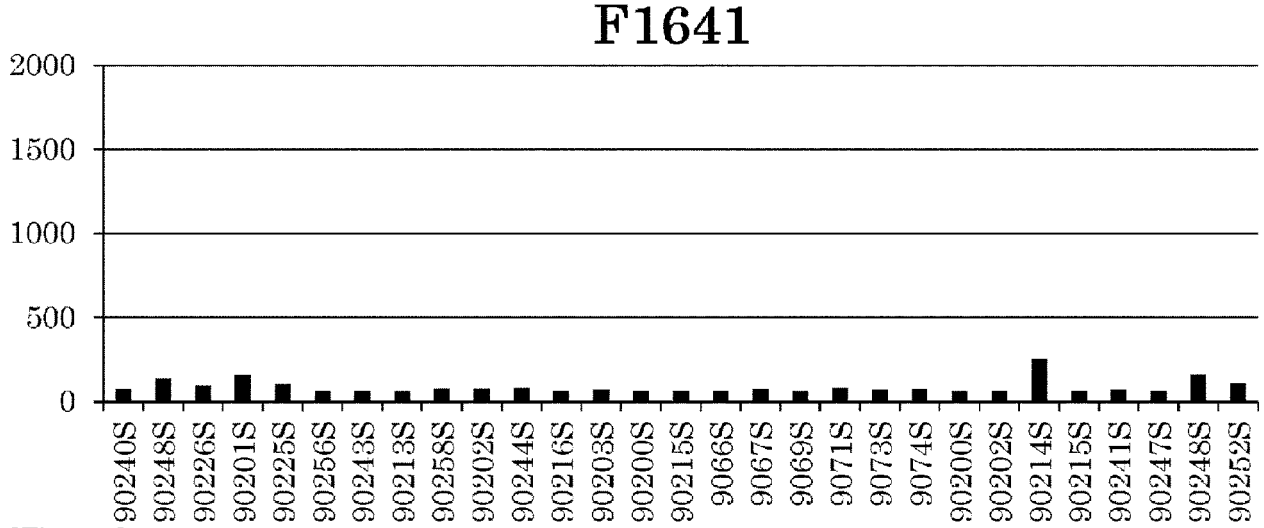
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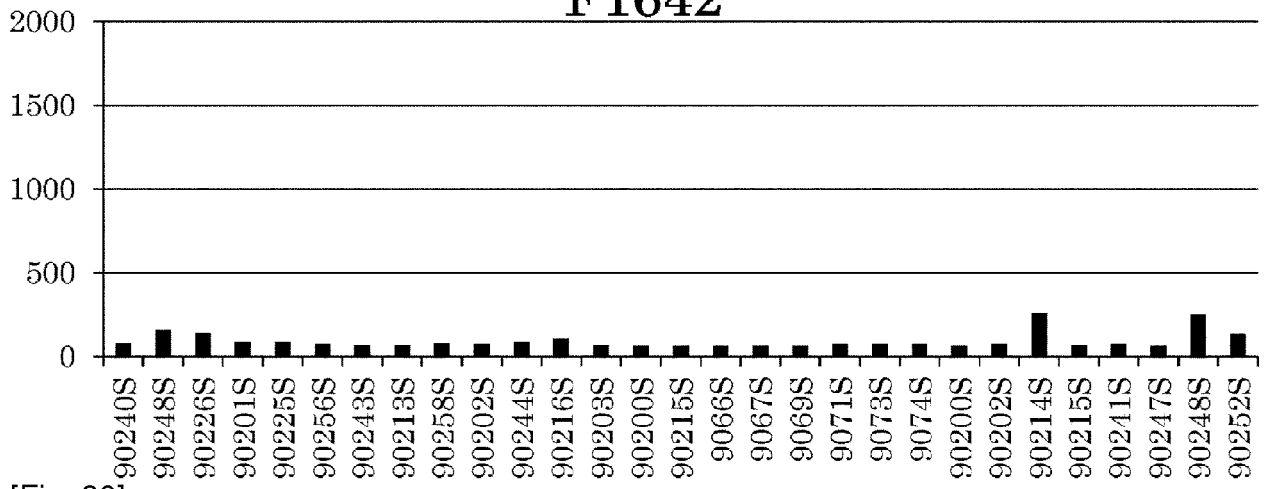
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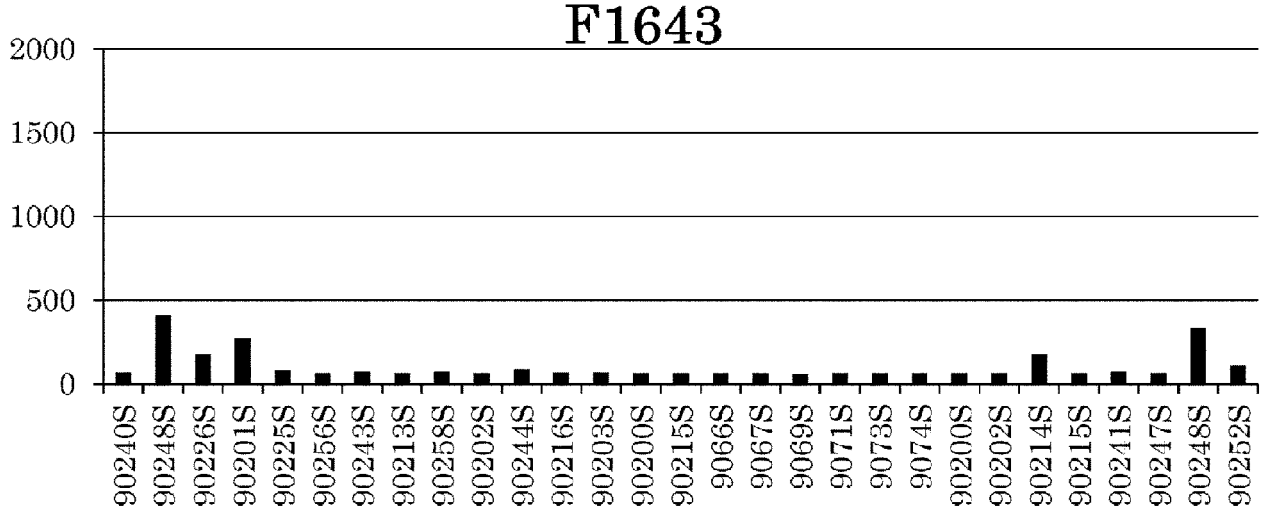
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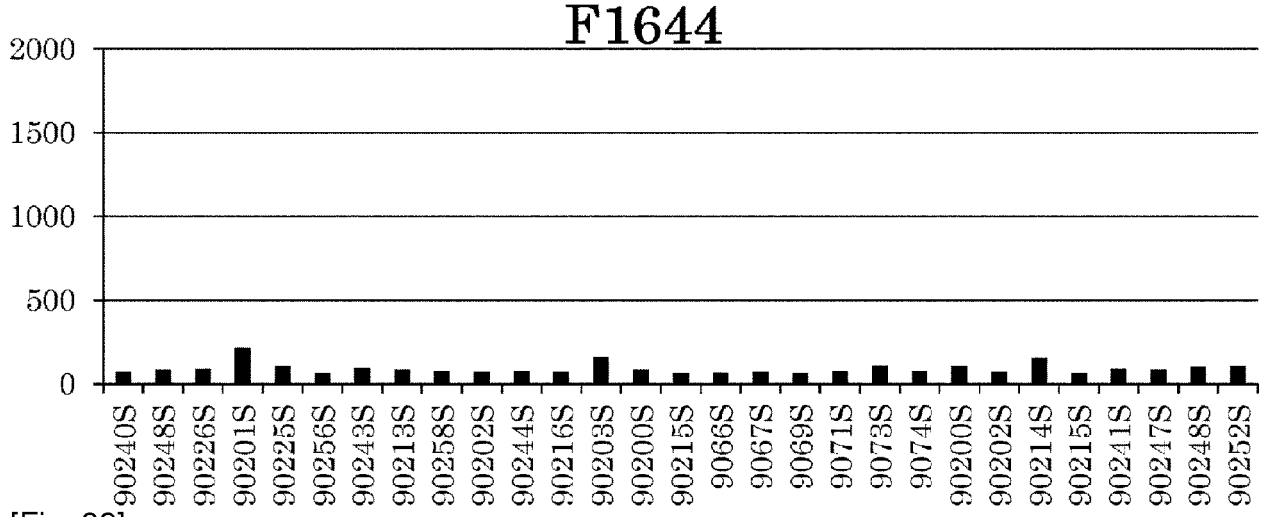
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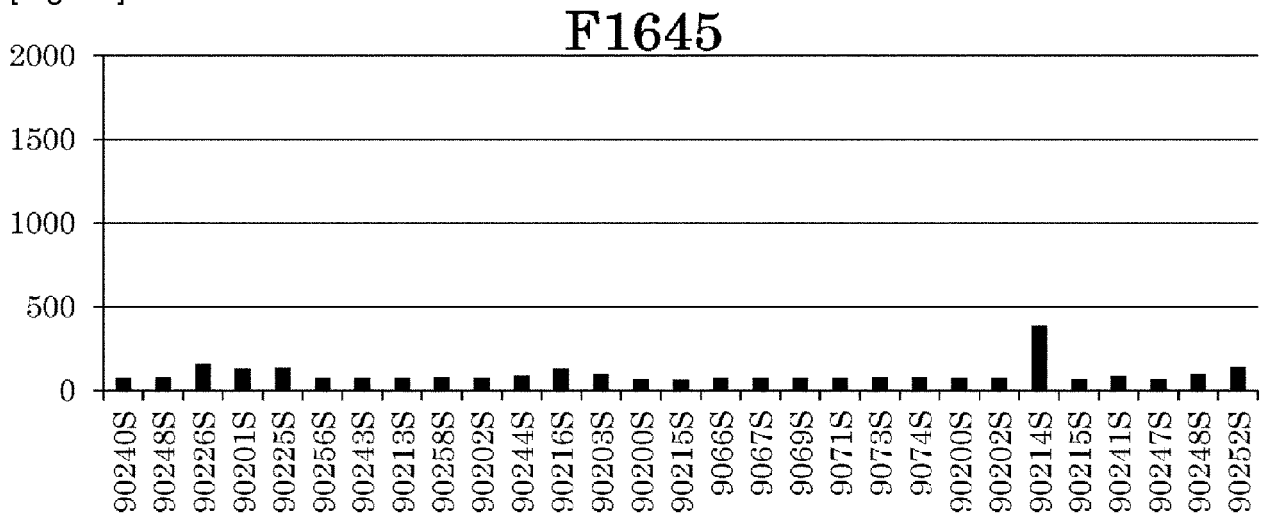
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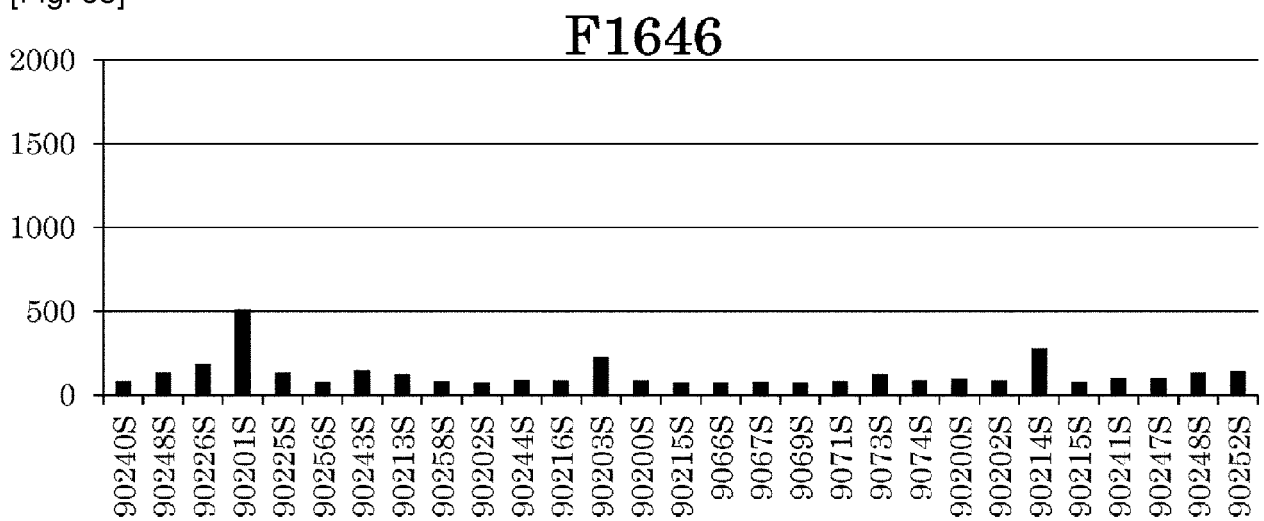
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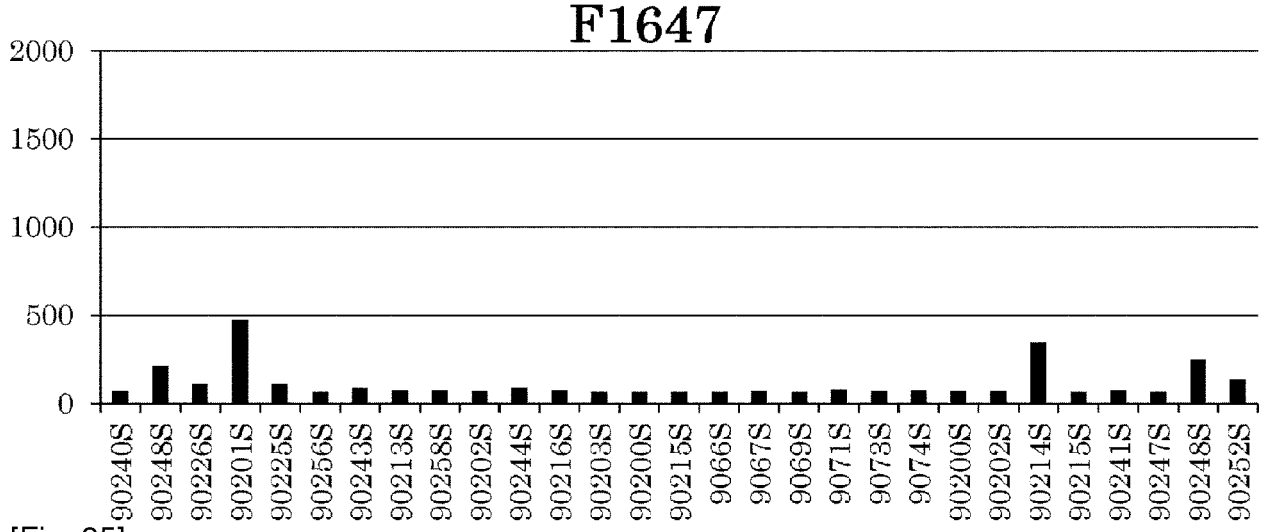
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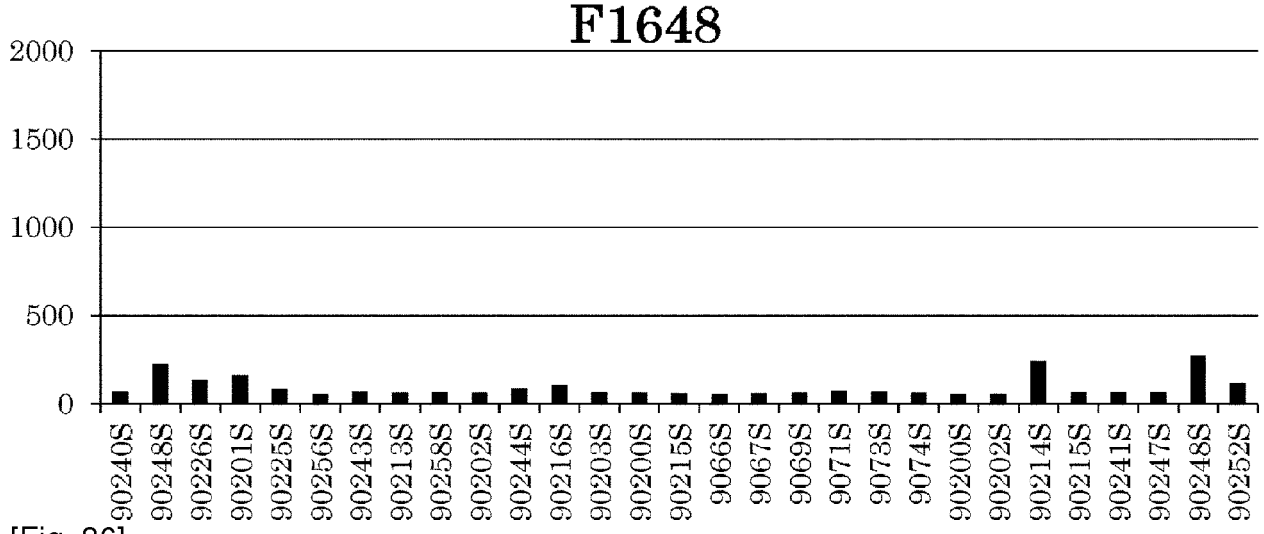
[Fig. 83]



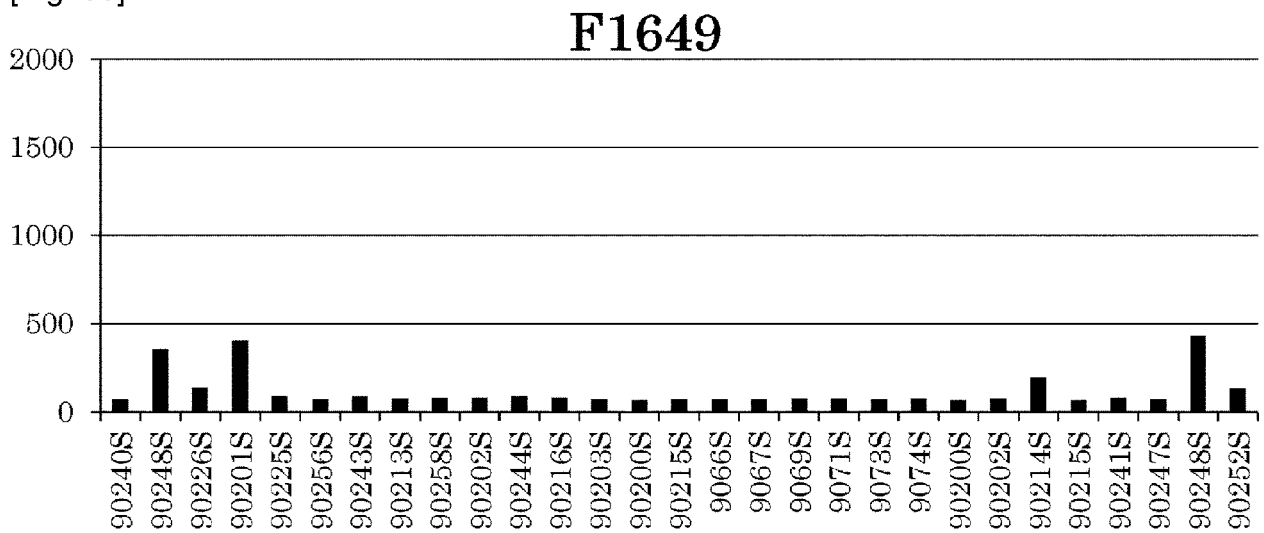
[Fig. 84]



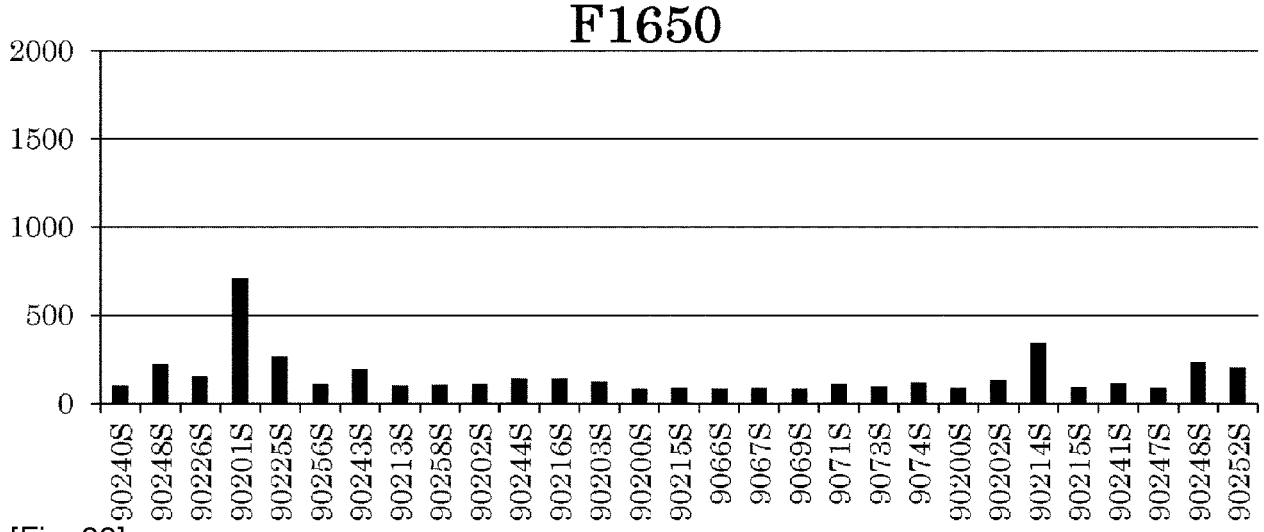
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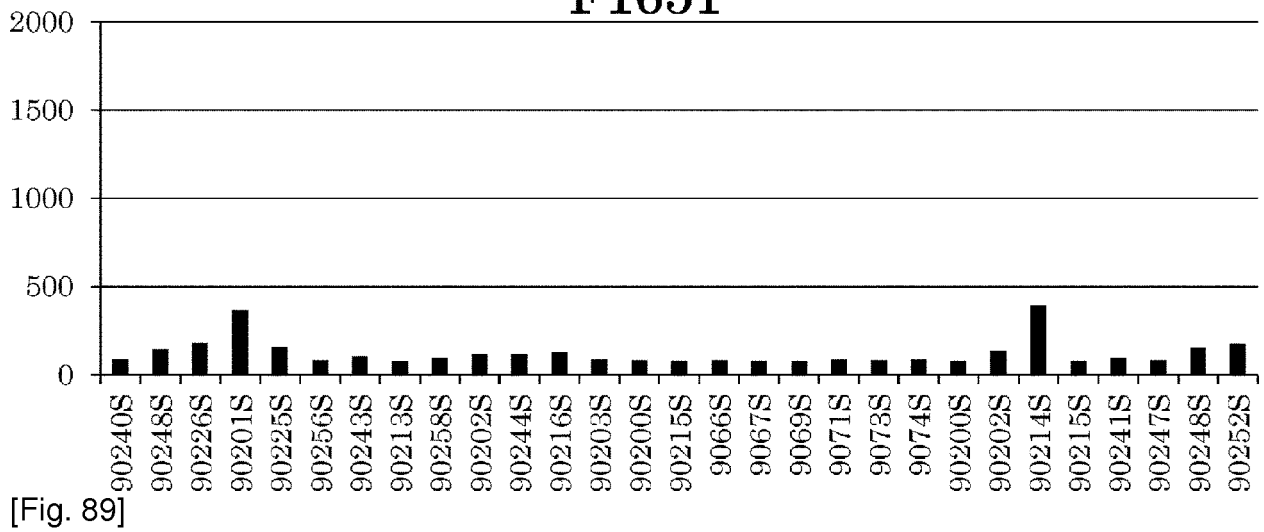
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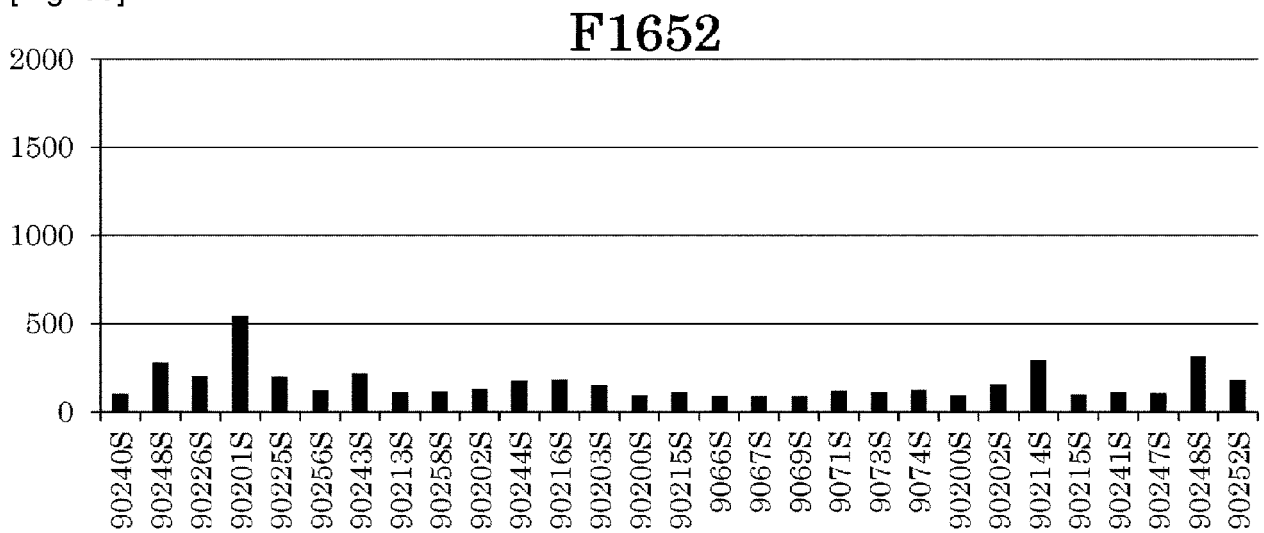
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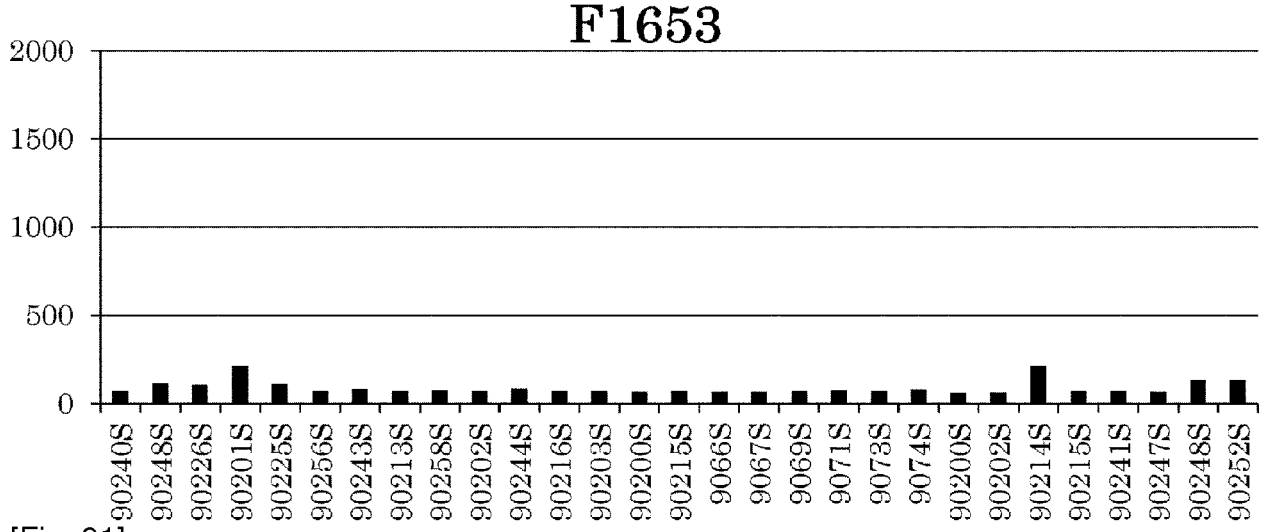
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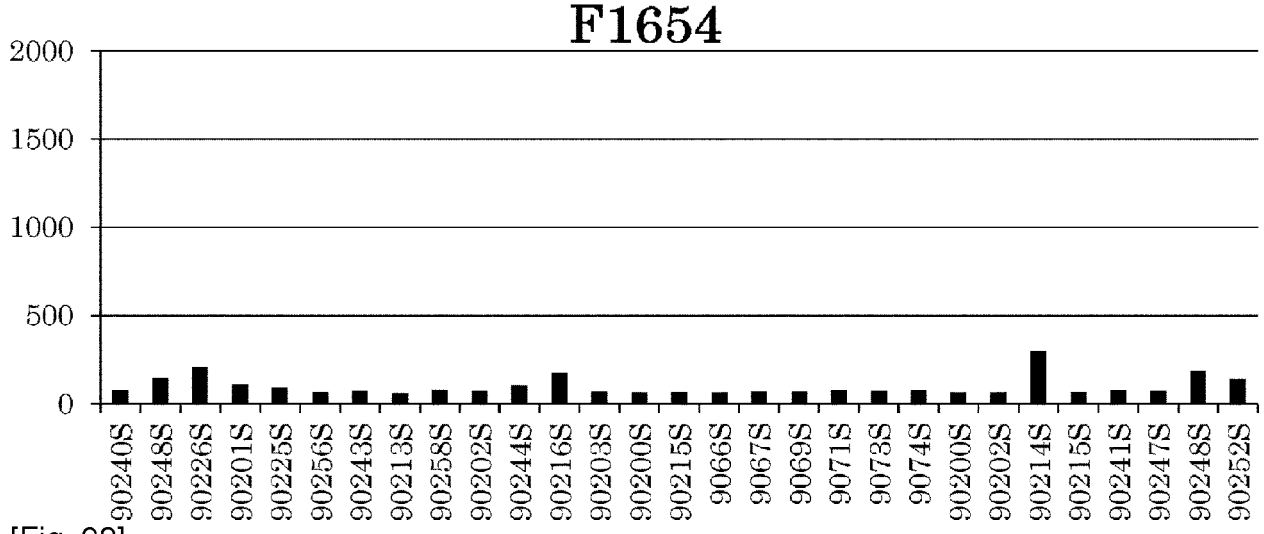
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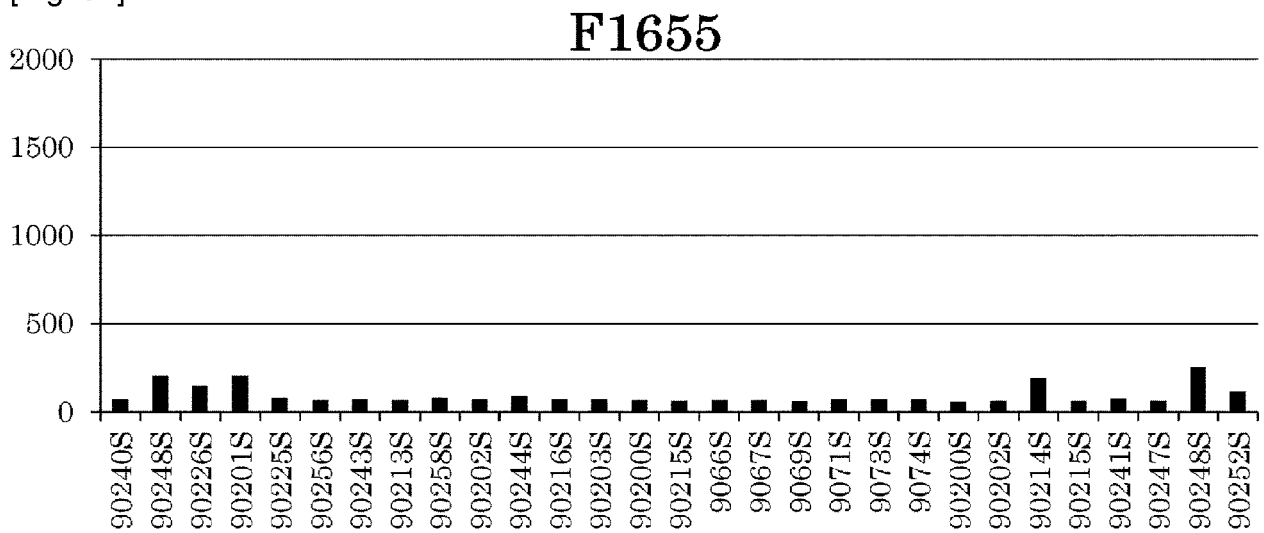
[Fig. 90]



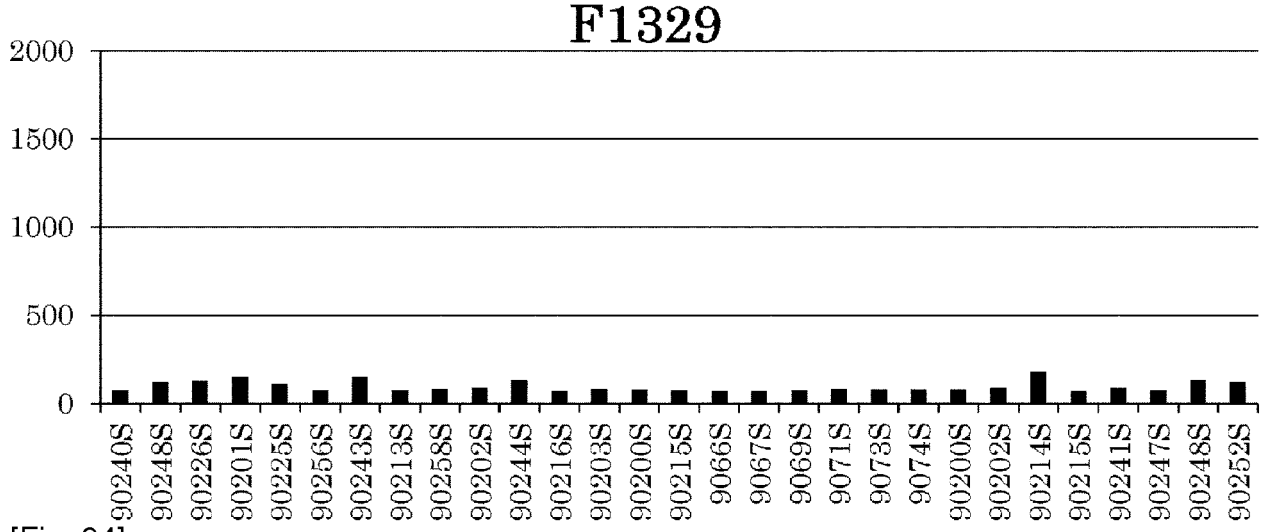
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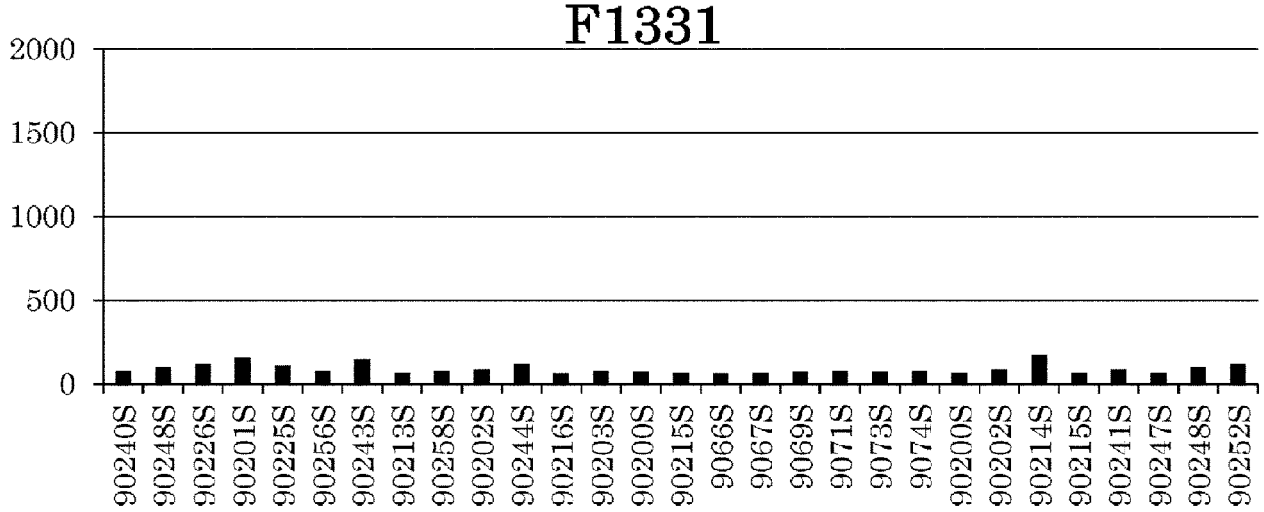
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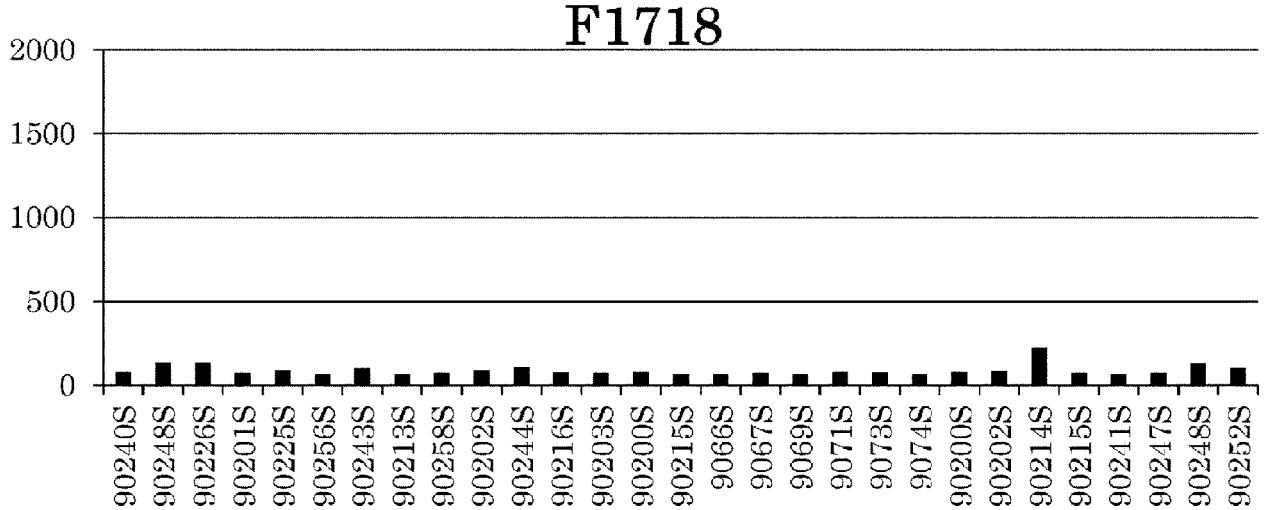
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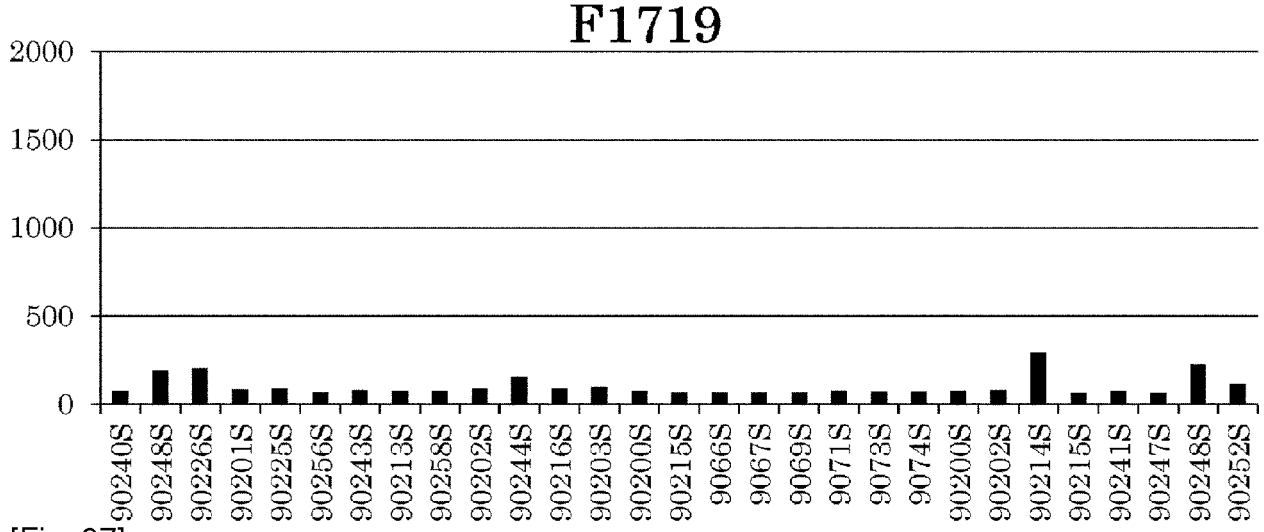
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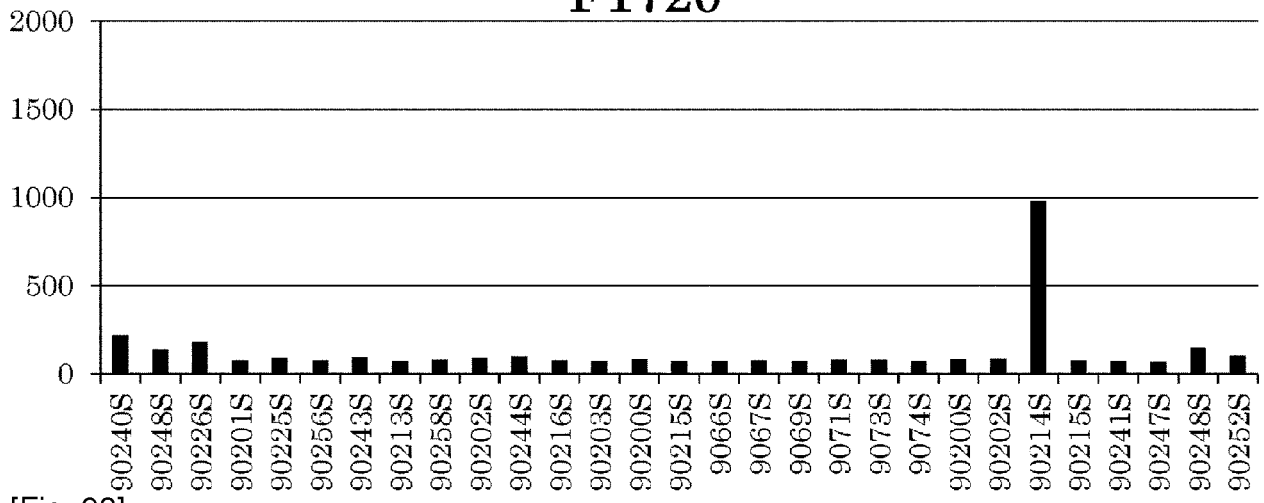
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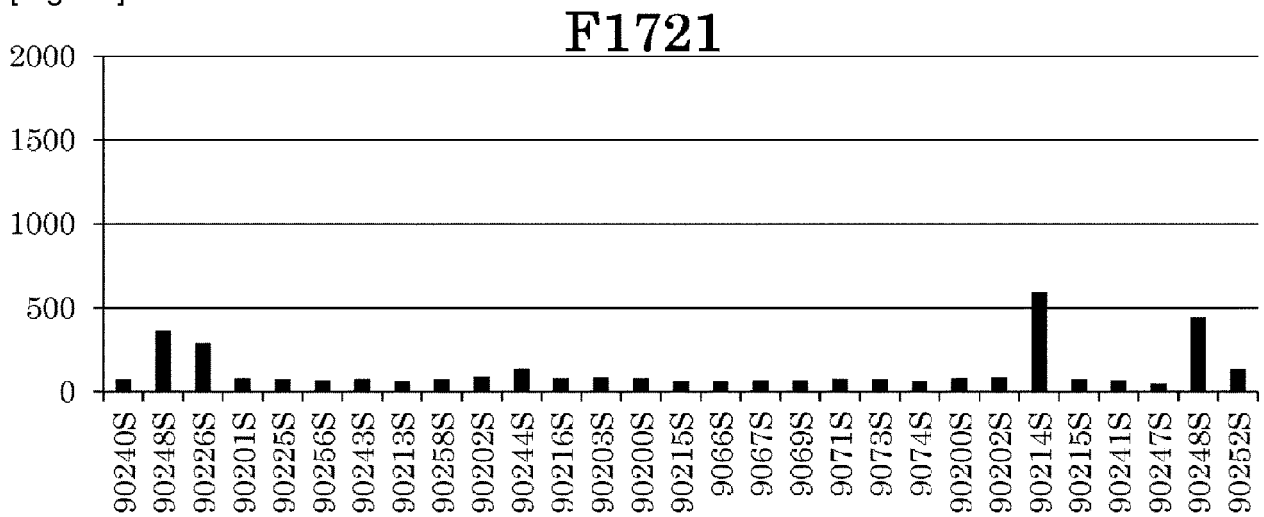
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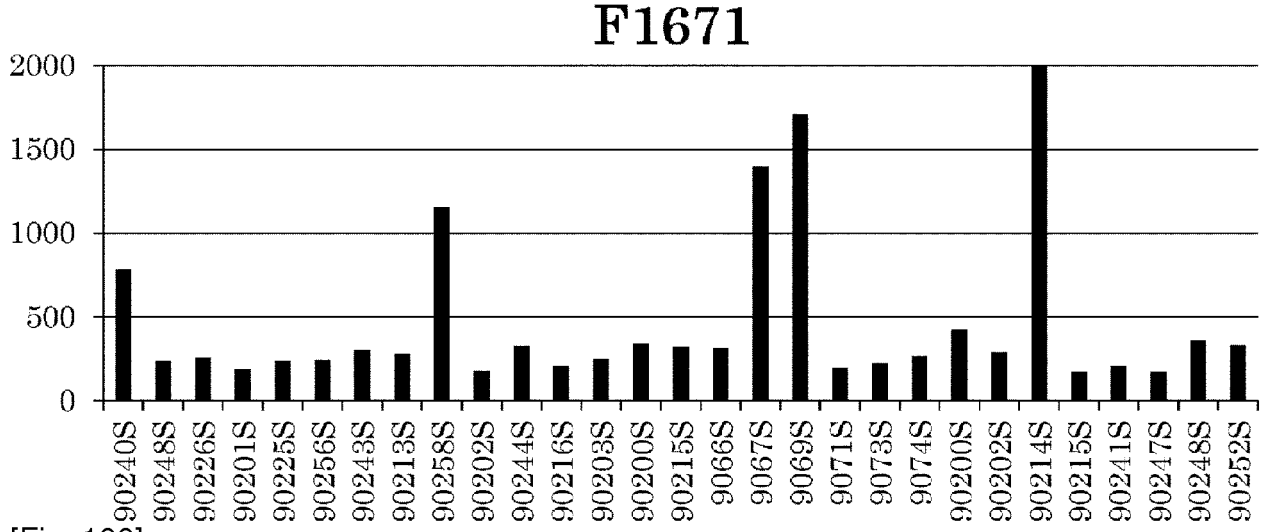
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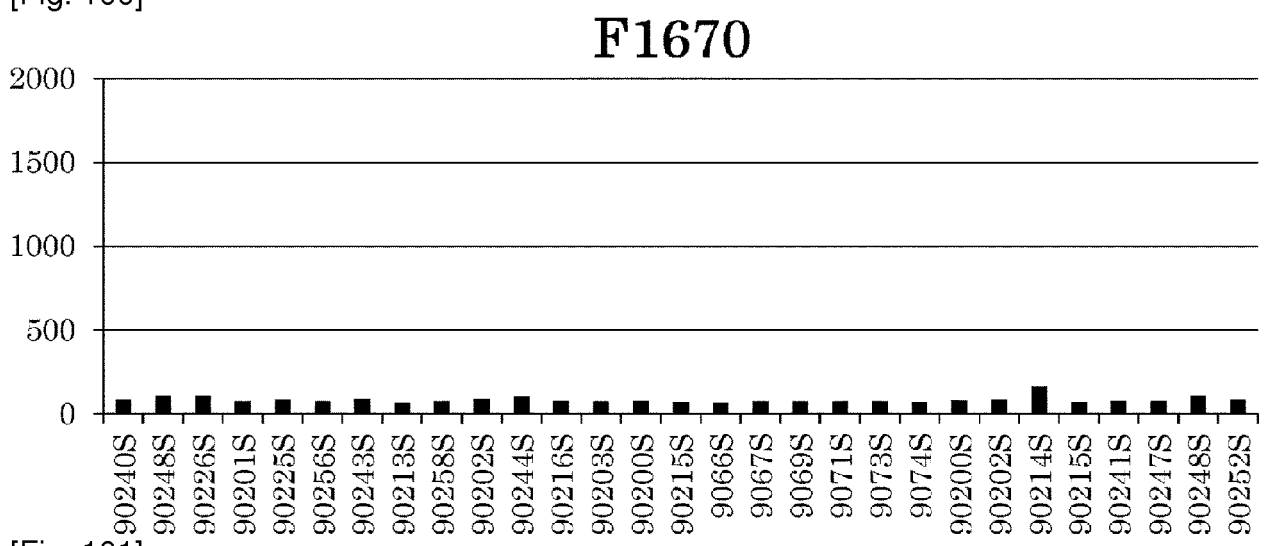
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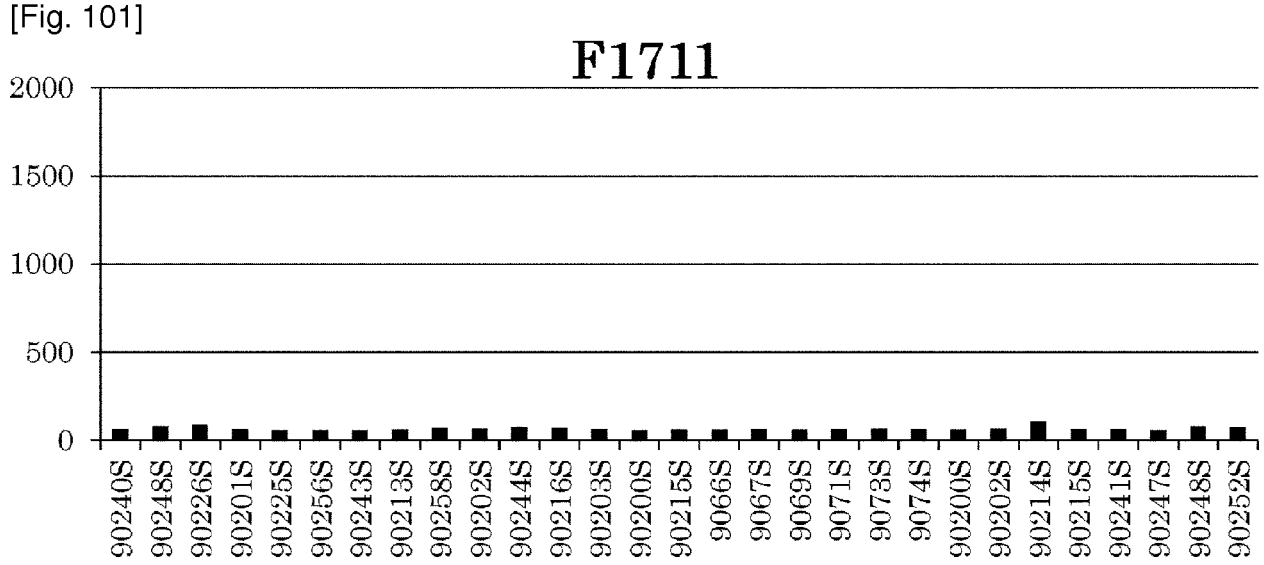
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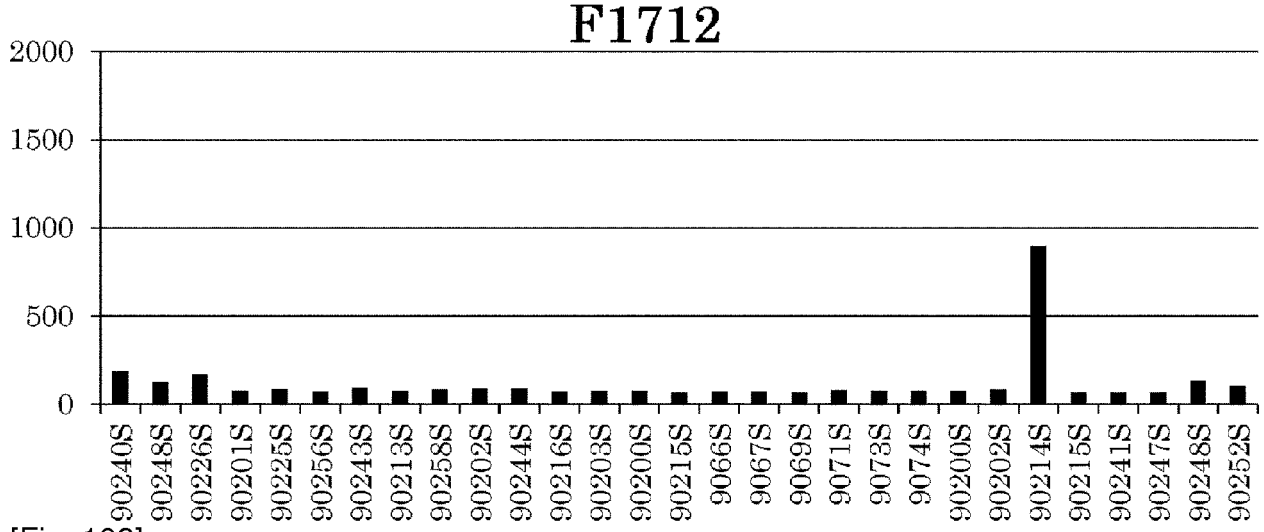
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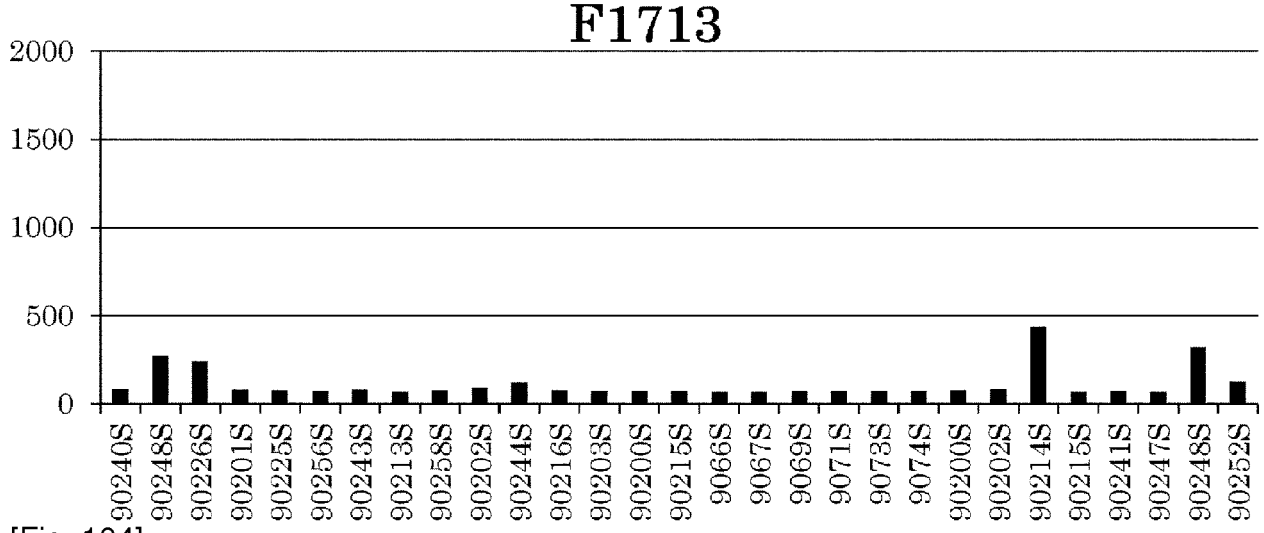
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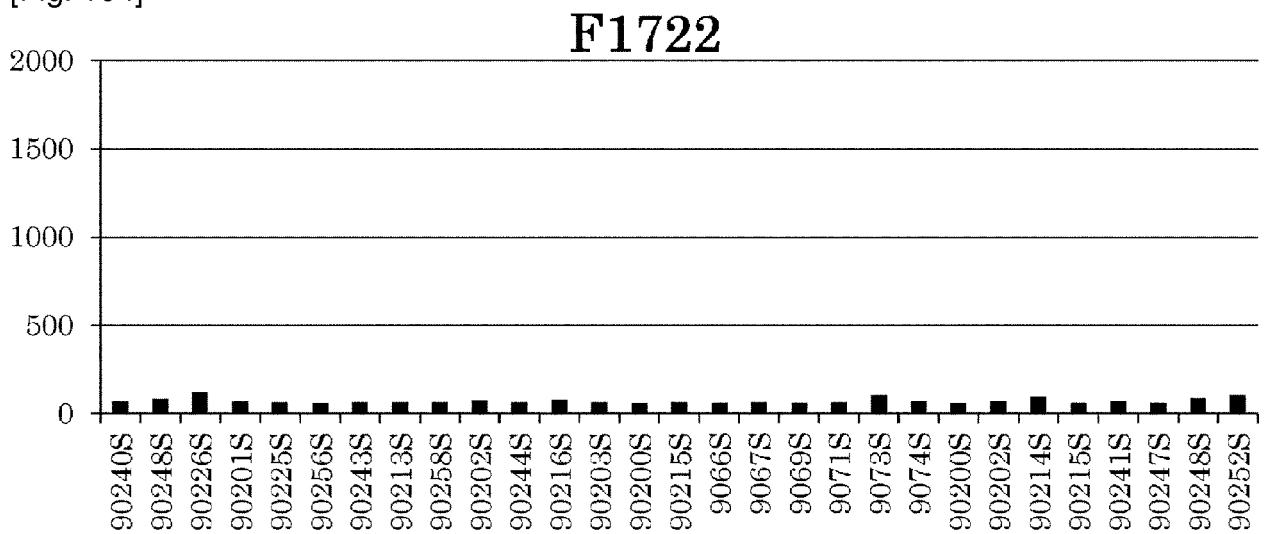
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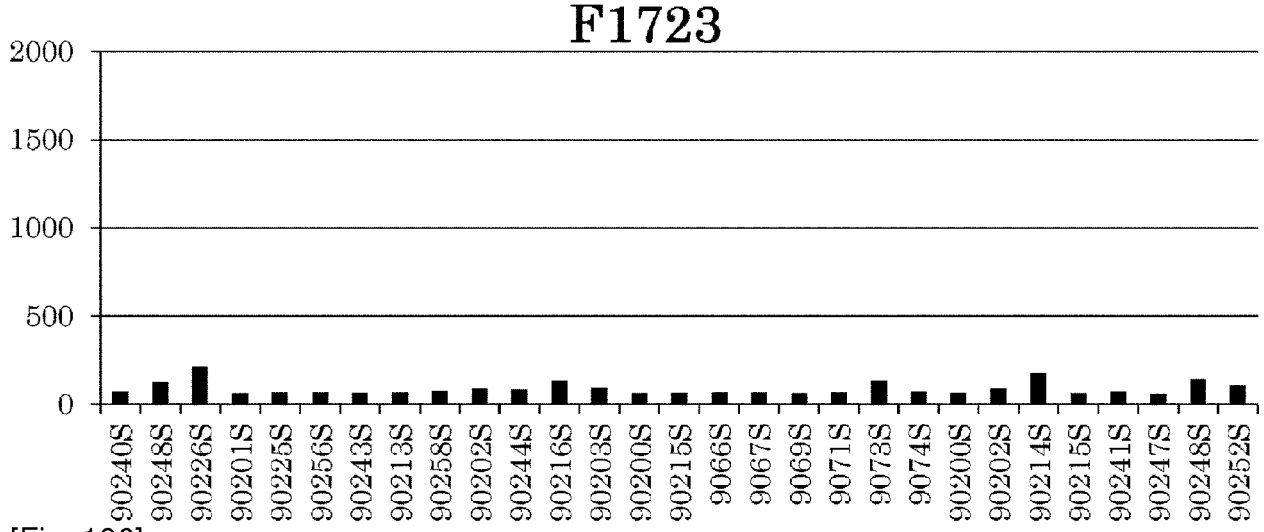
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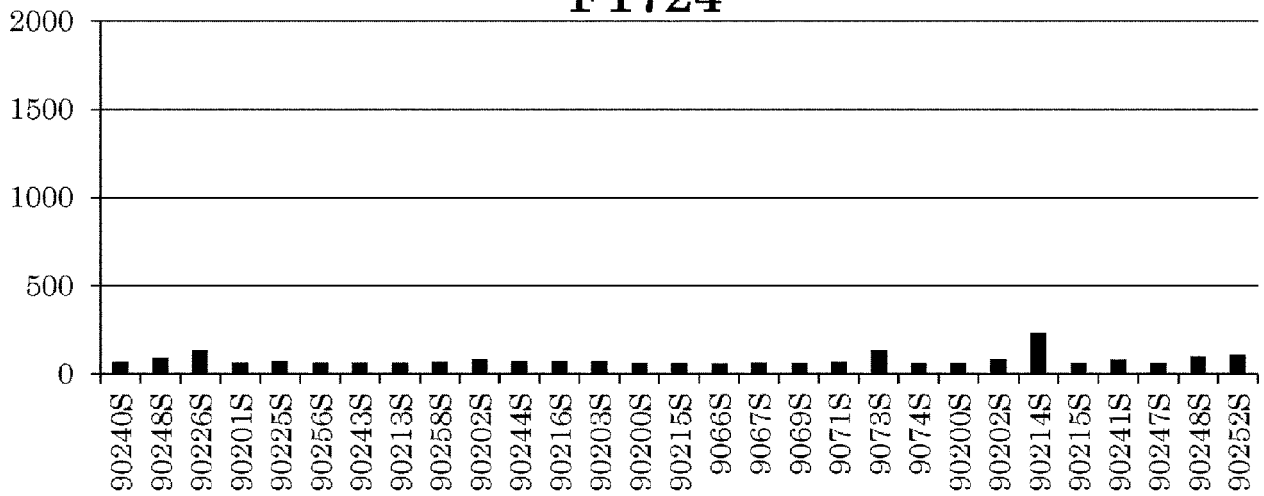
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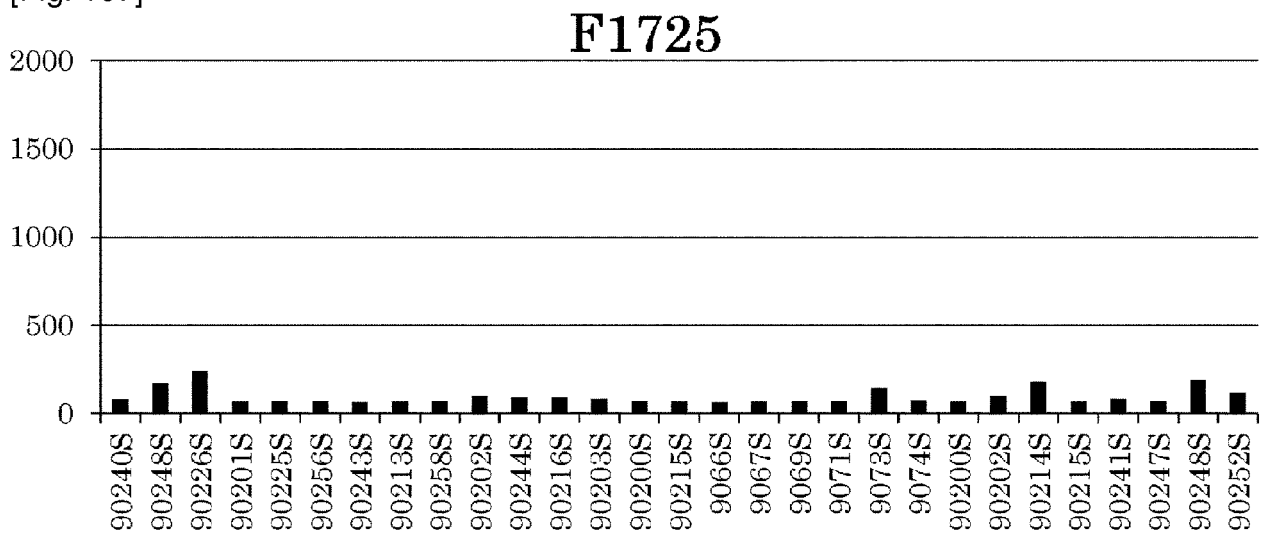
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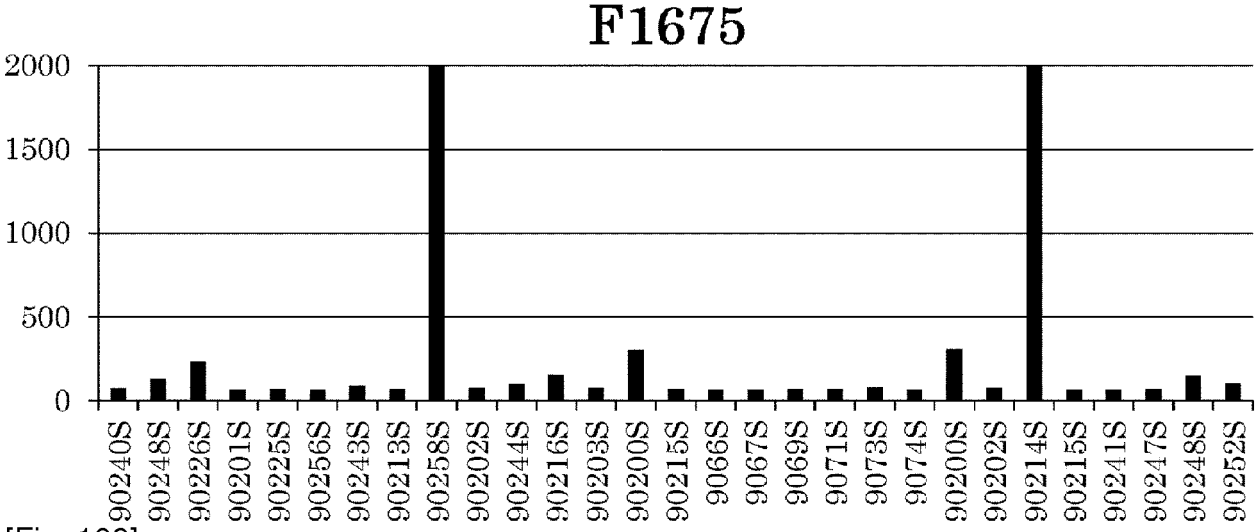
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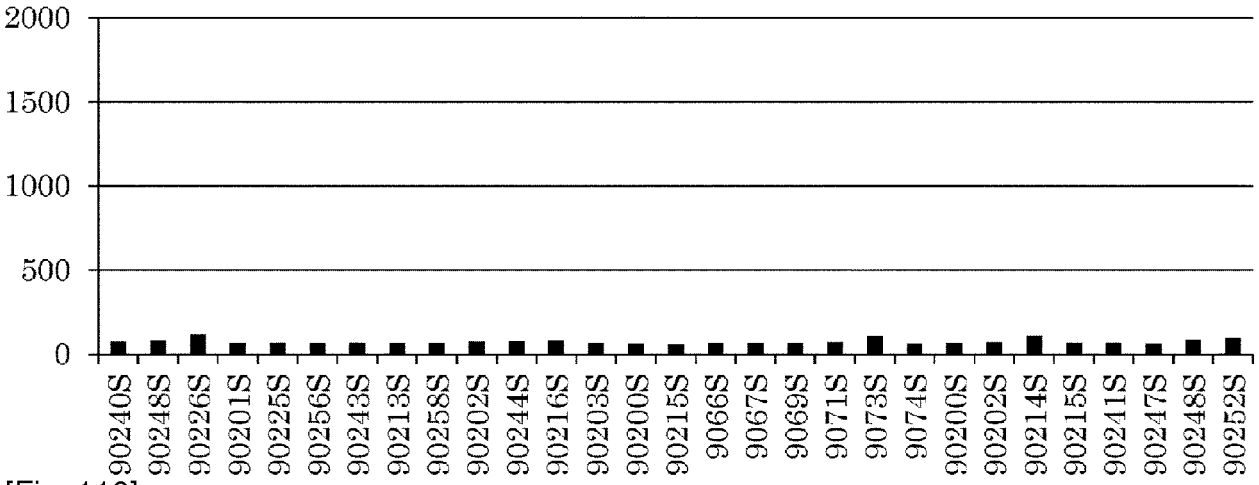
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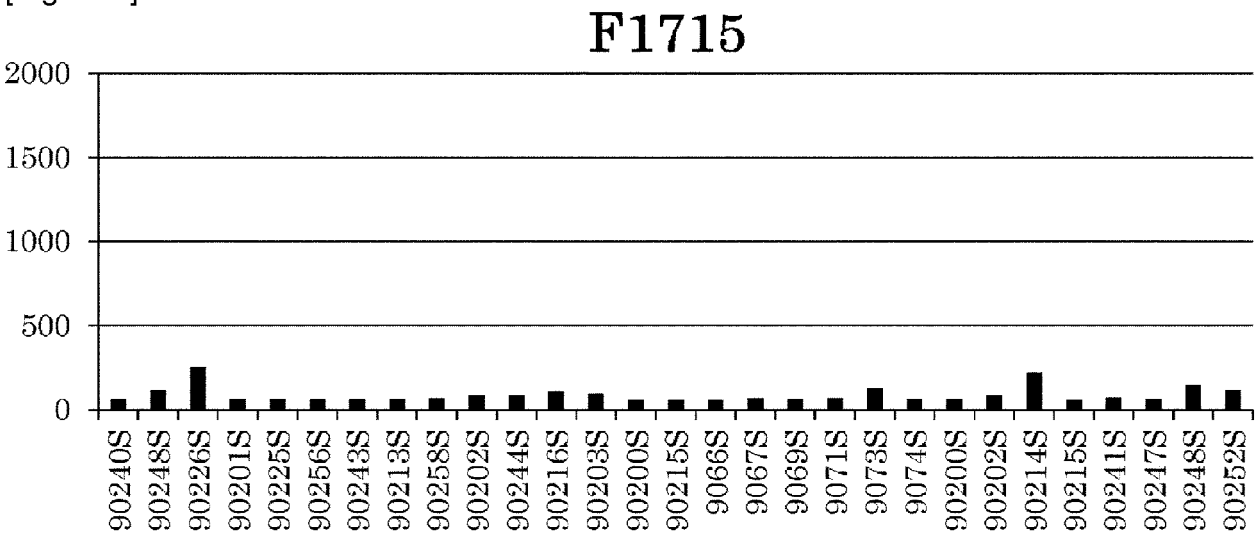
[Fig. 108]



[Fig. 109]



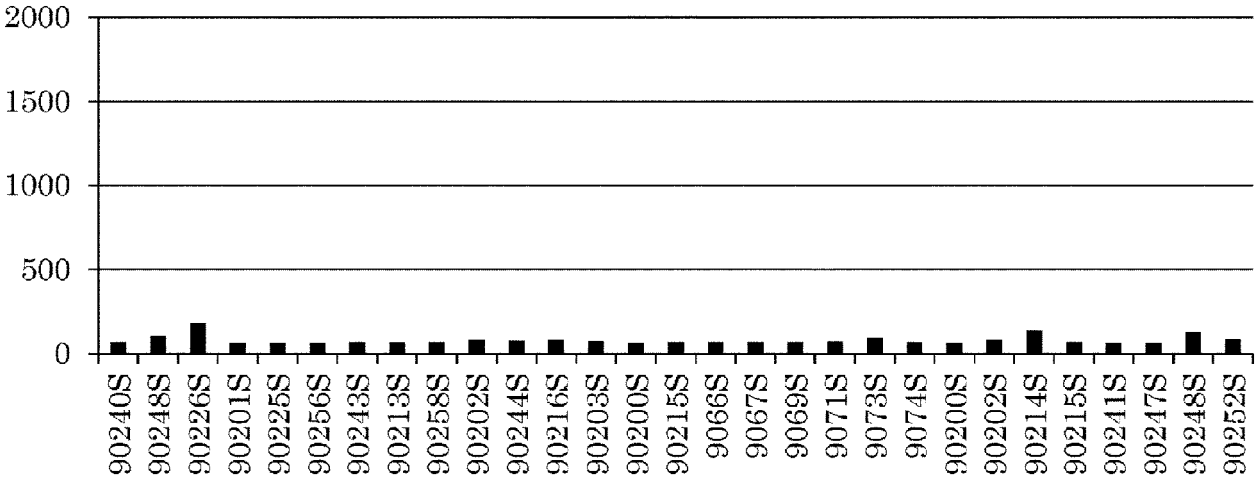
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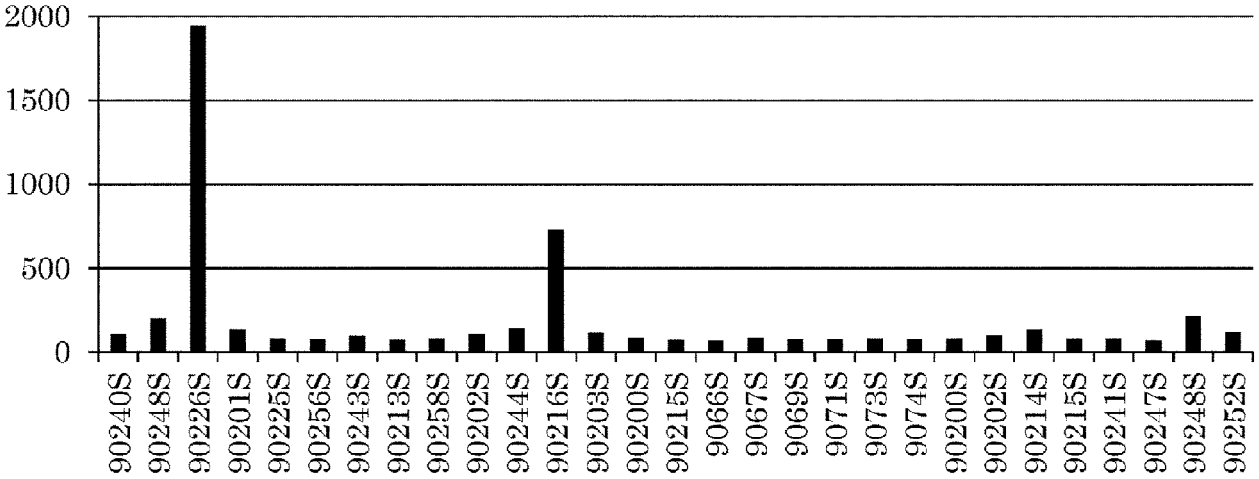
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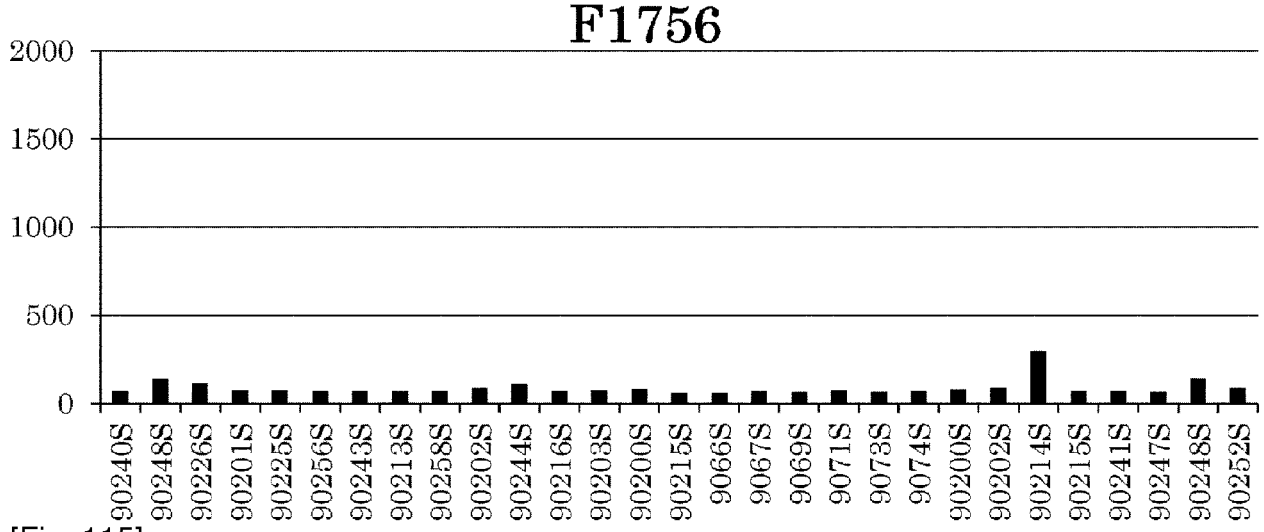
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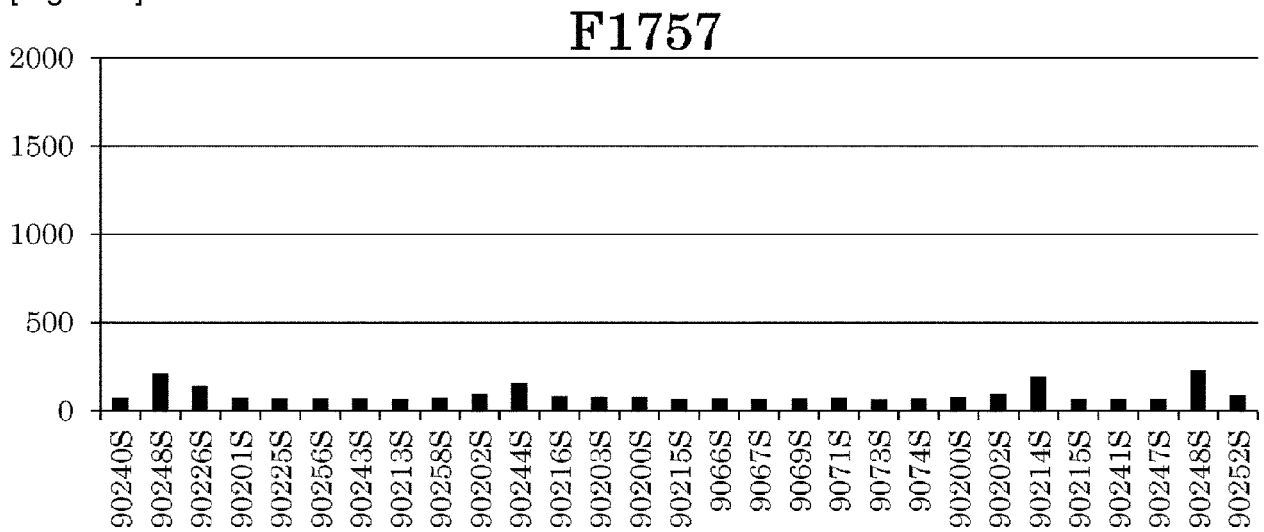
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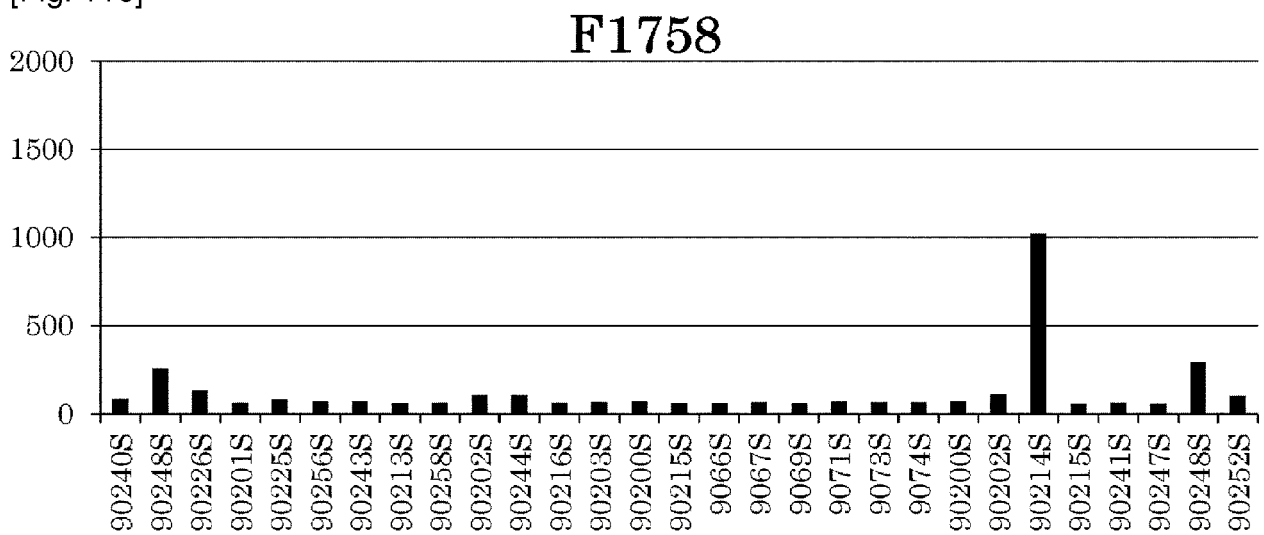
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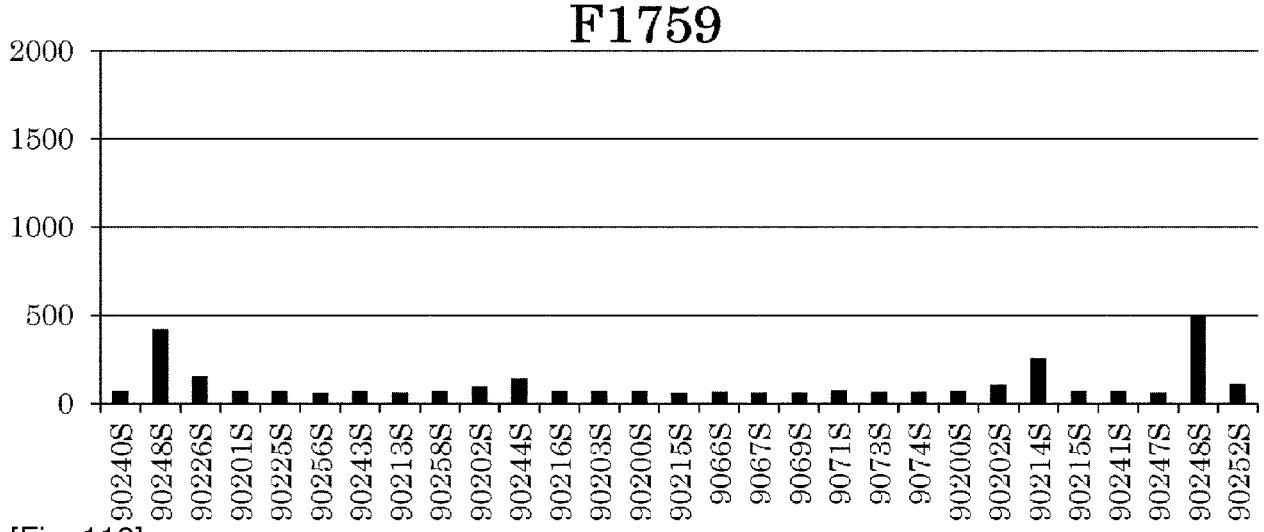
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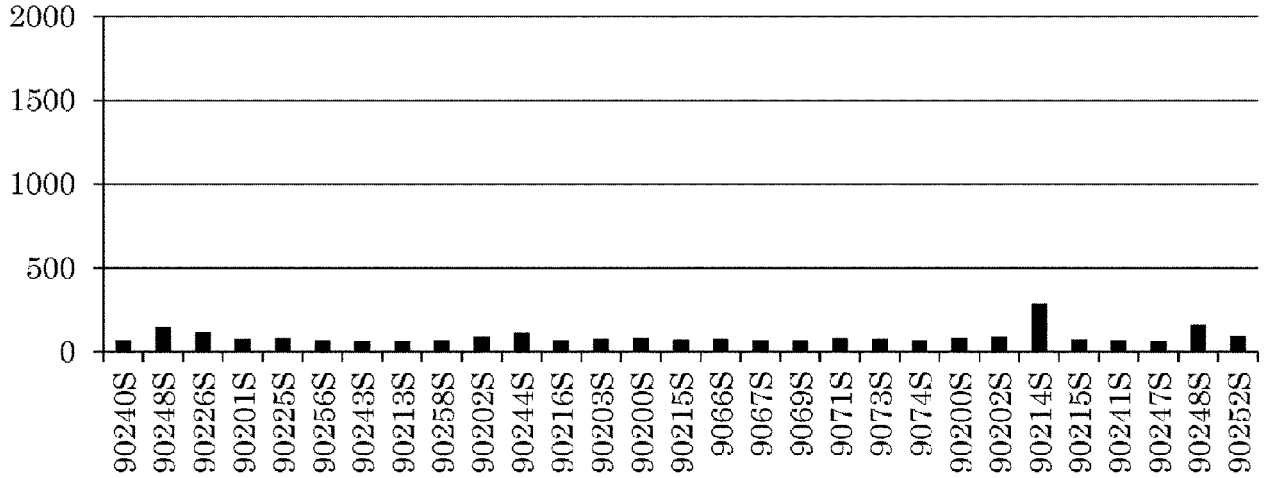
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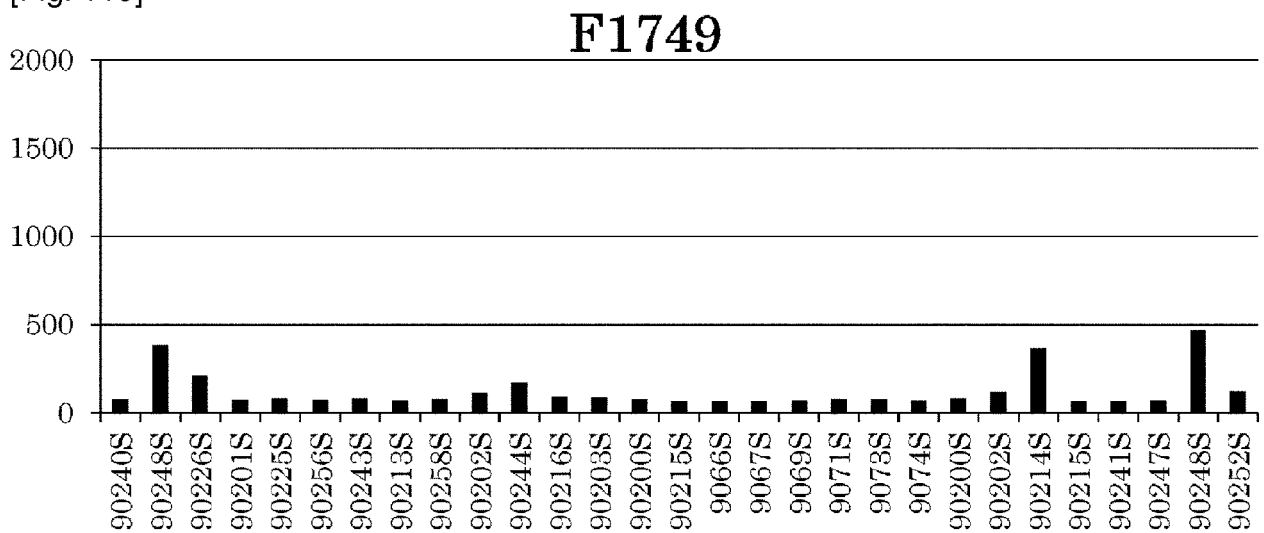
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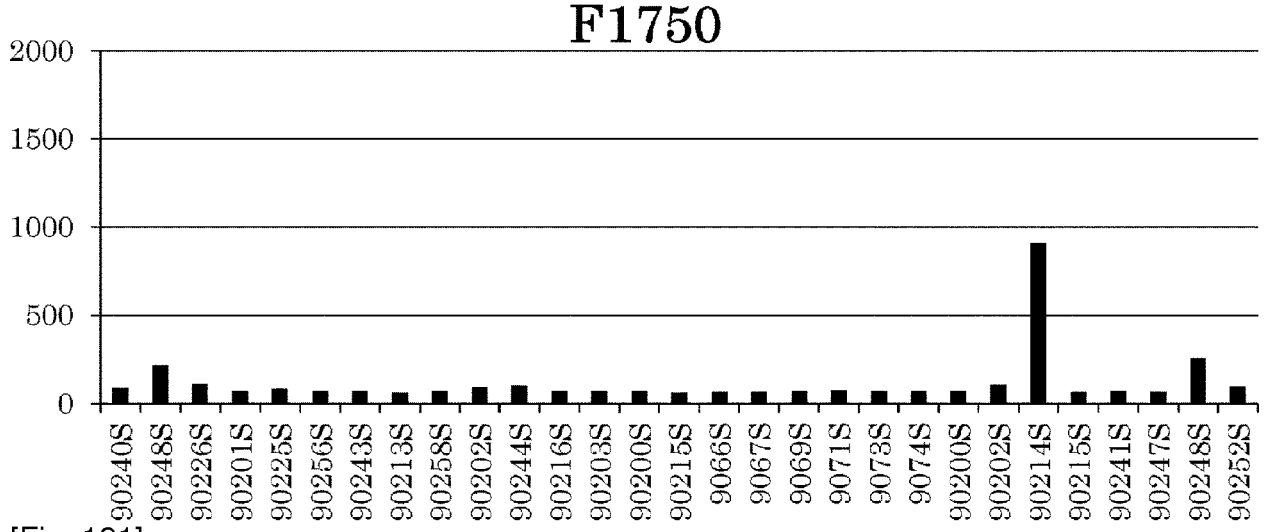
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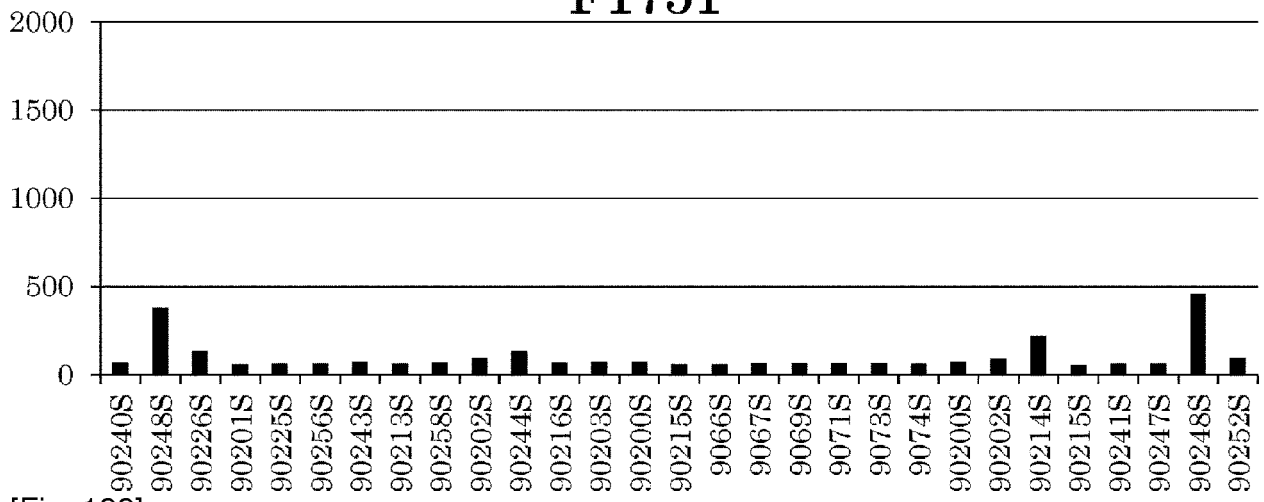
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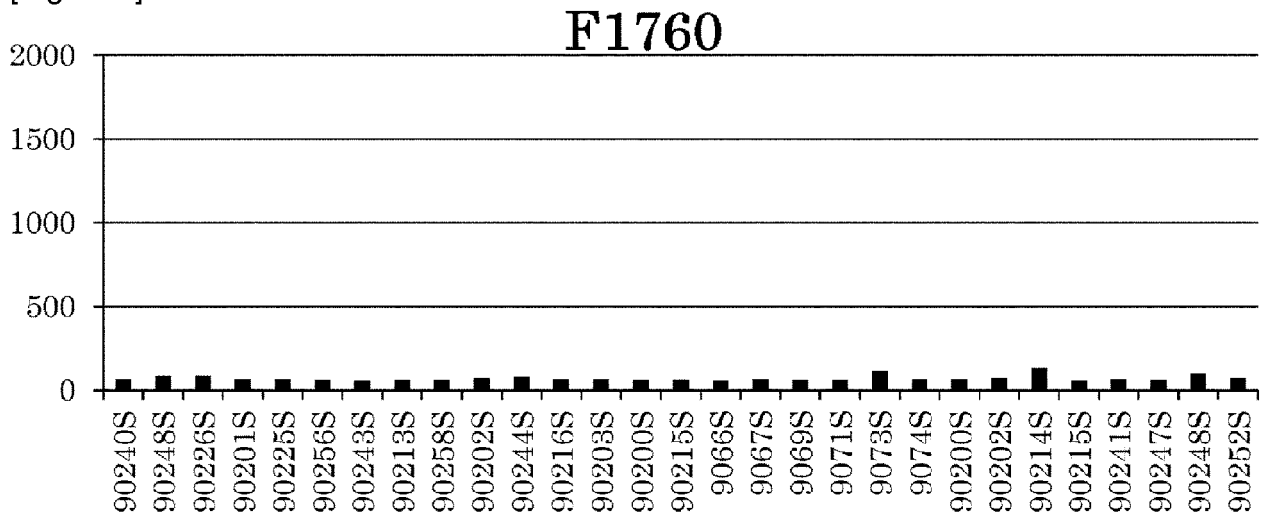
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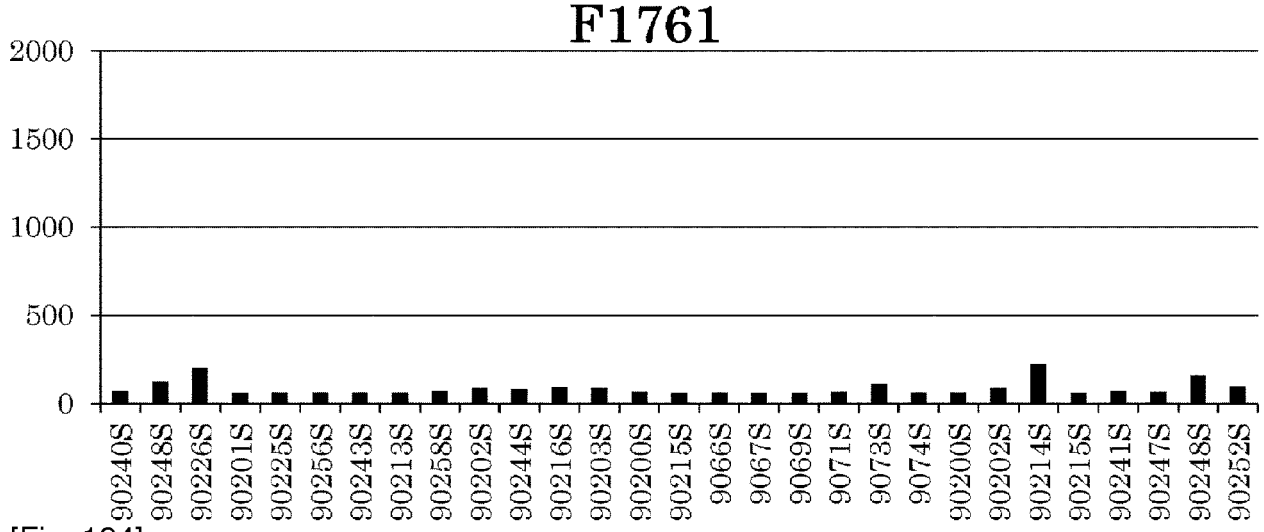
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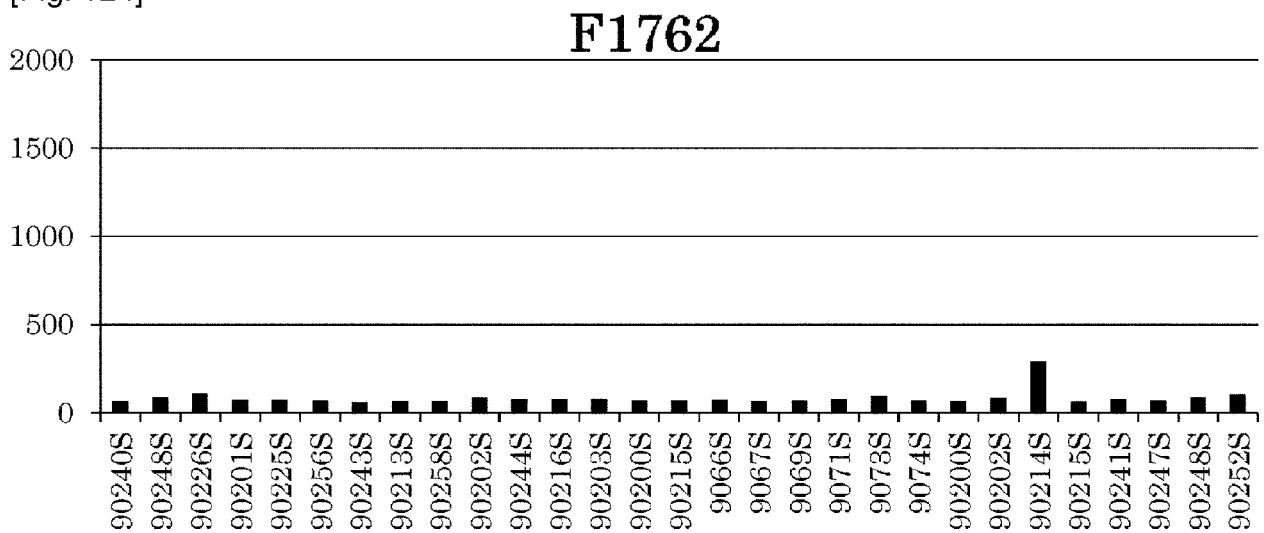
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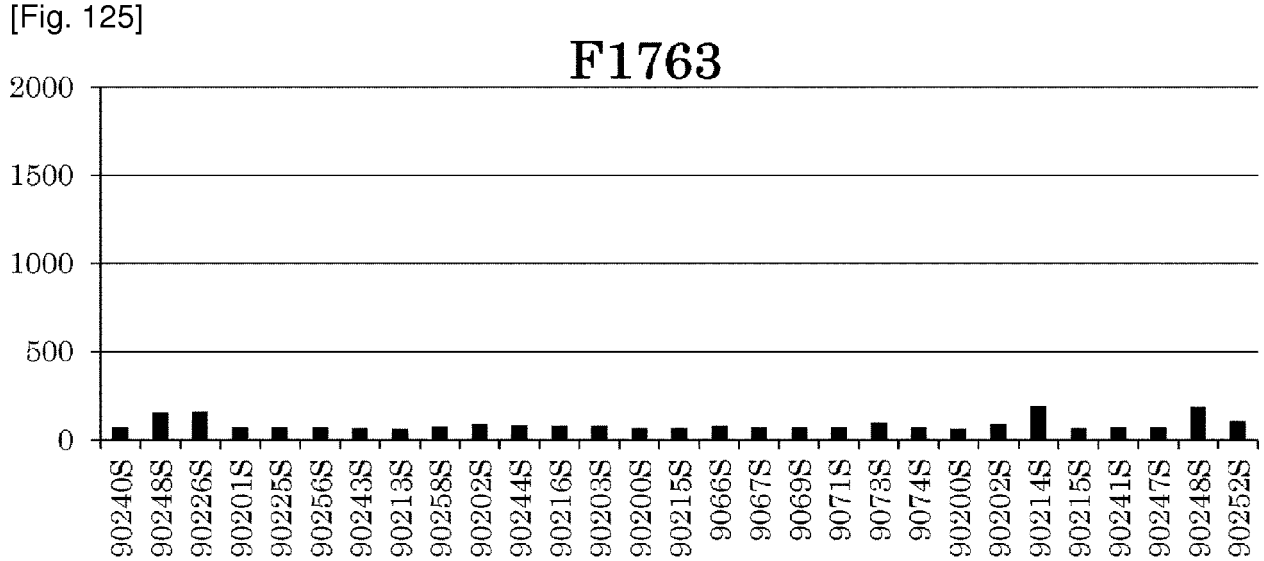
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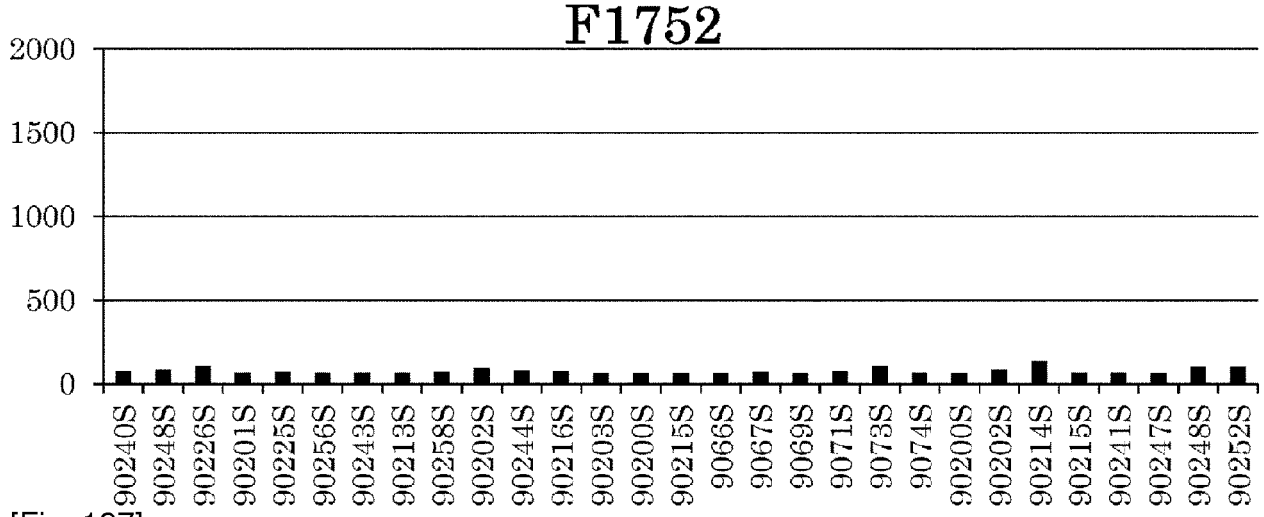
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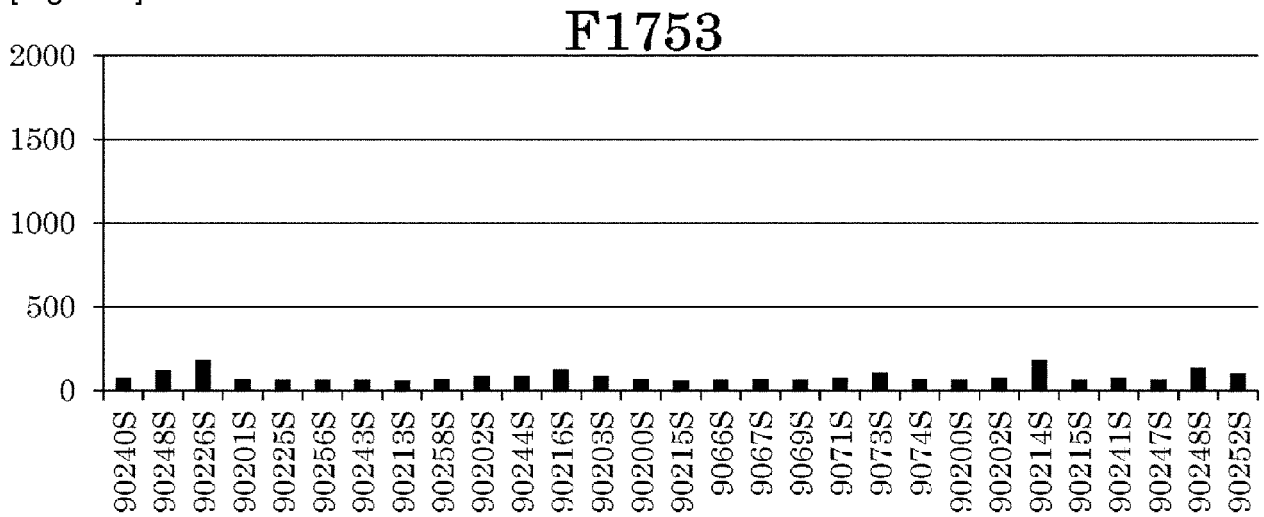
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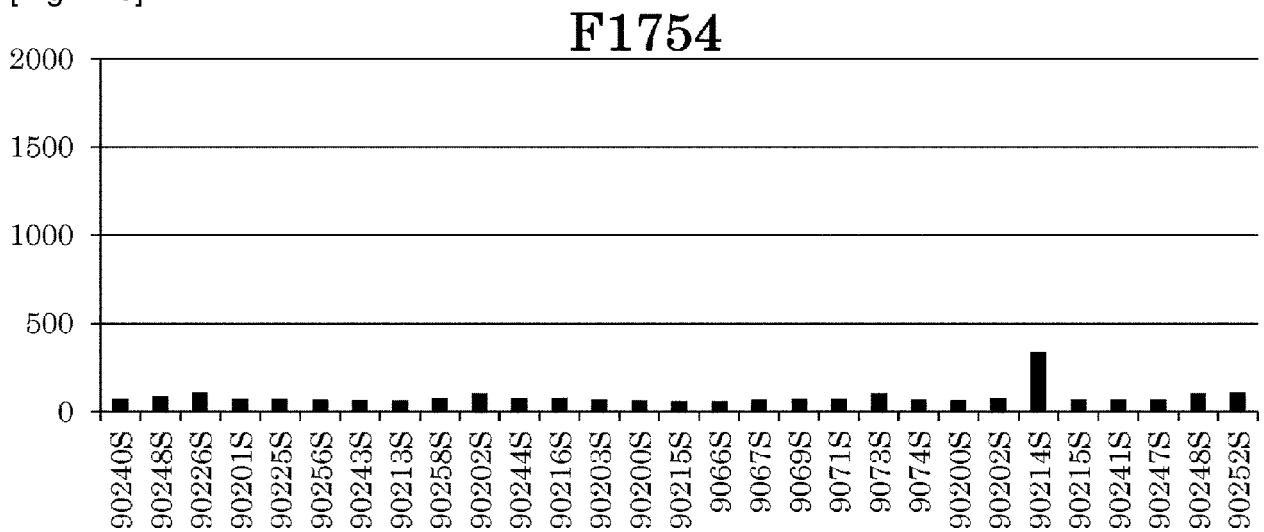
[Fig. 126]



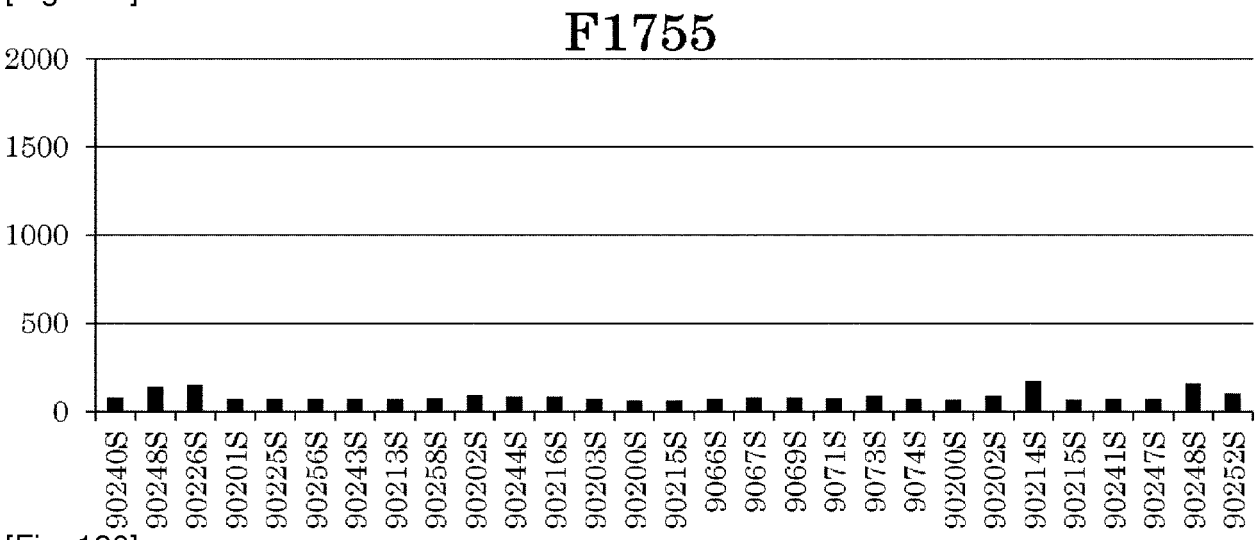
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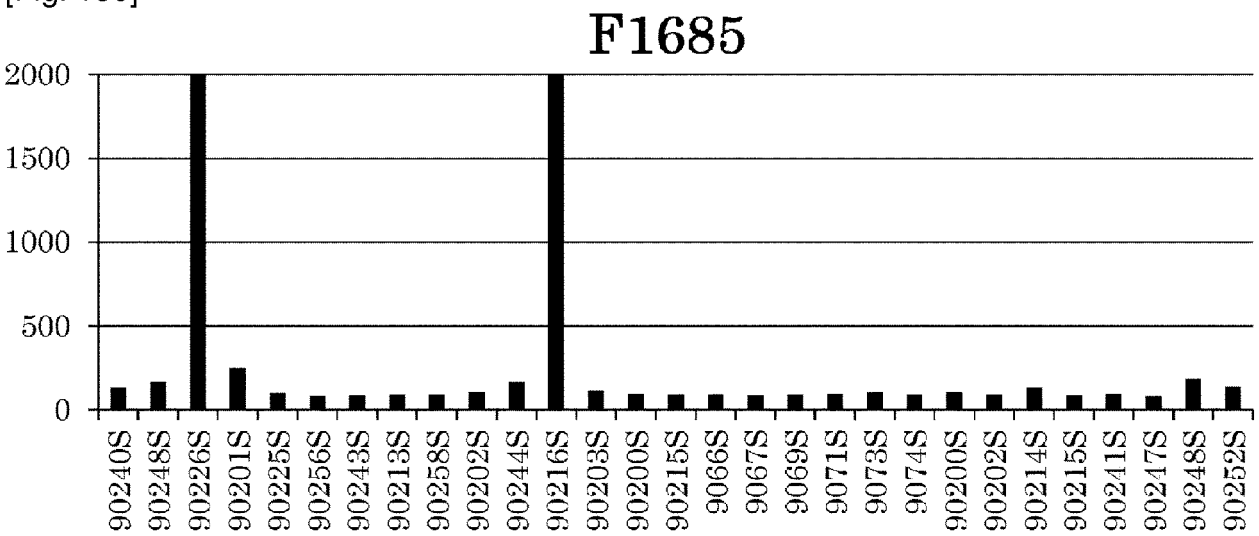
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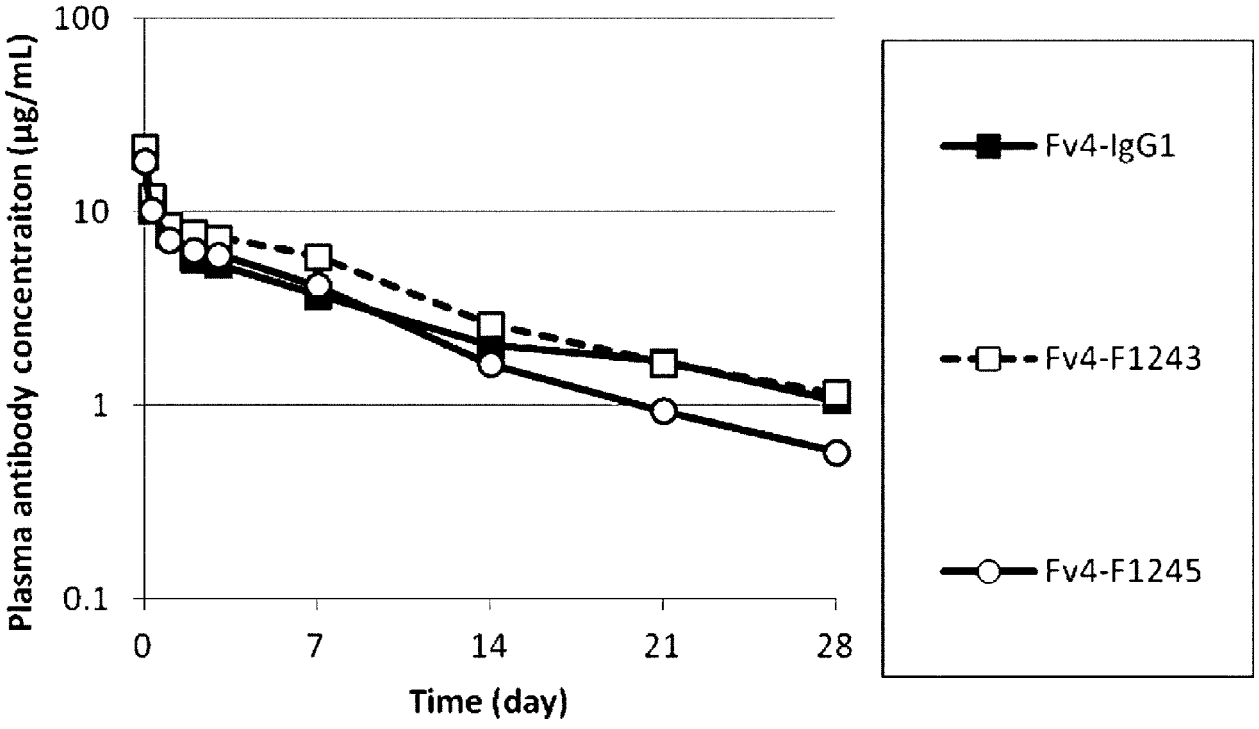
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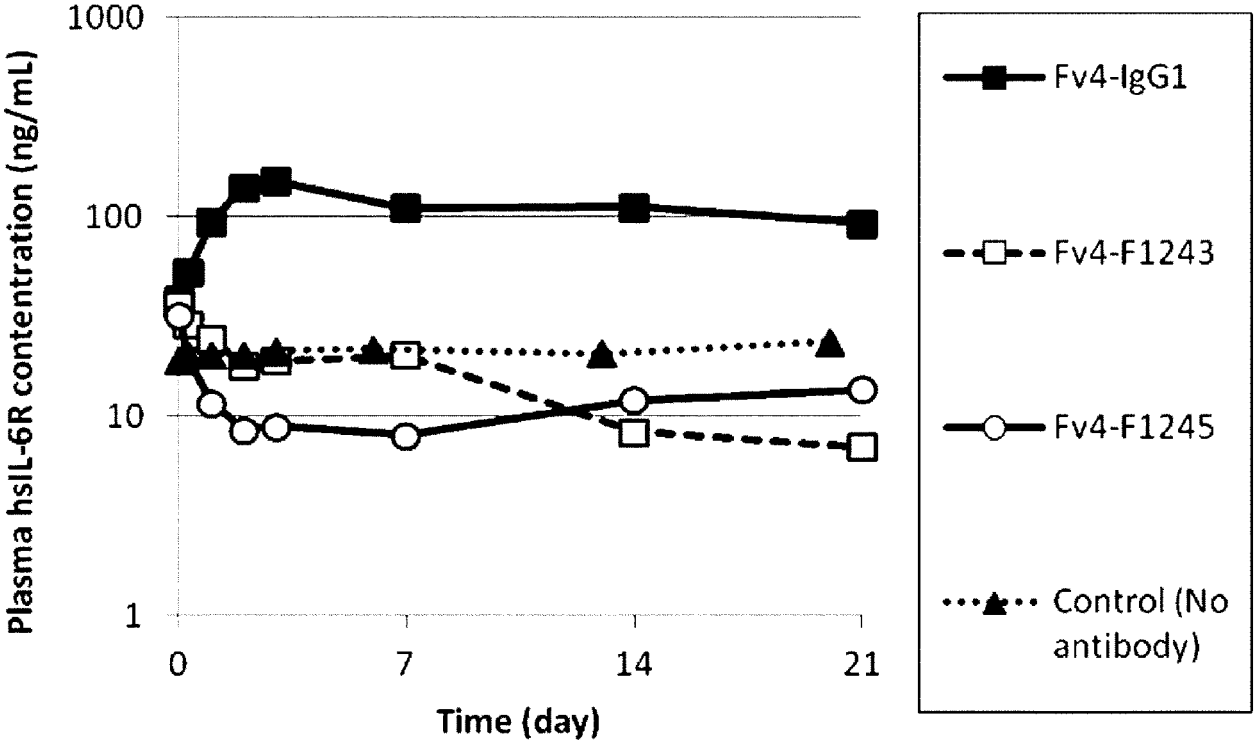
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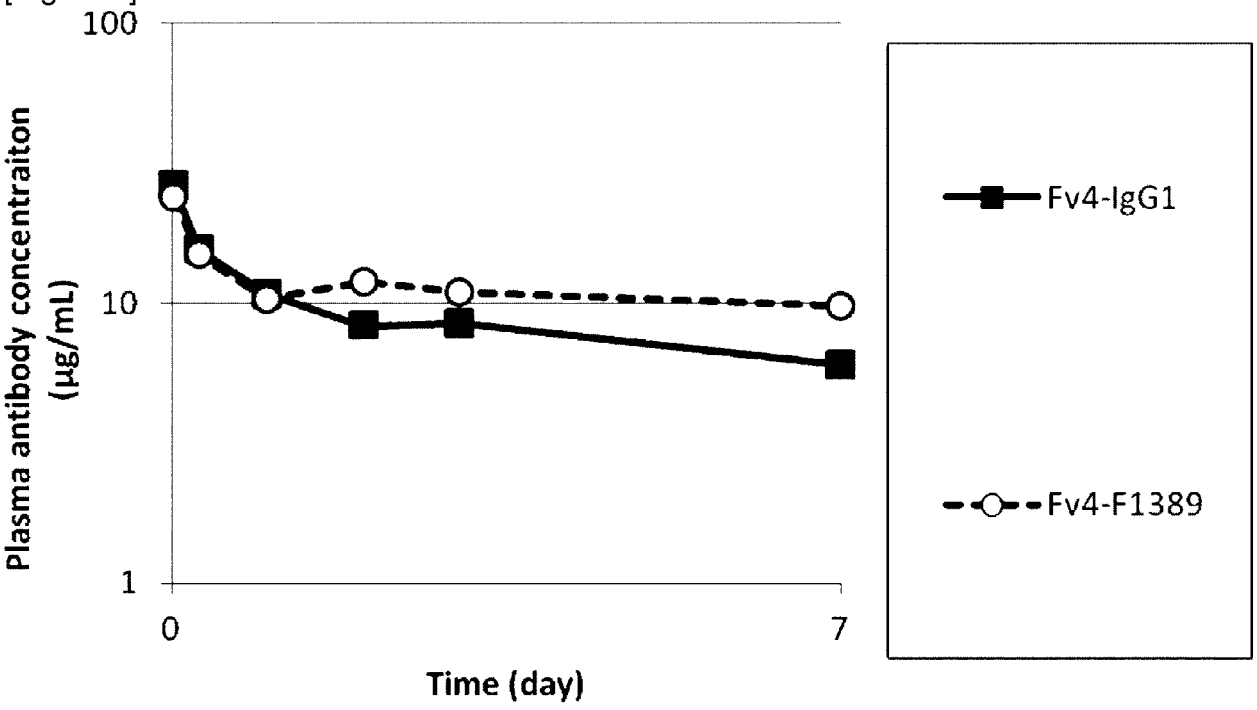
[Fig. 131]



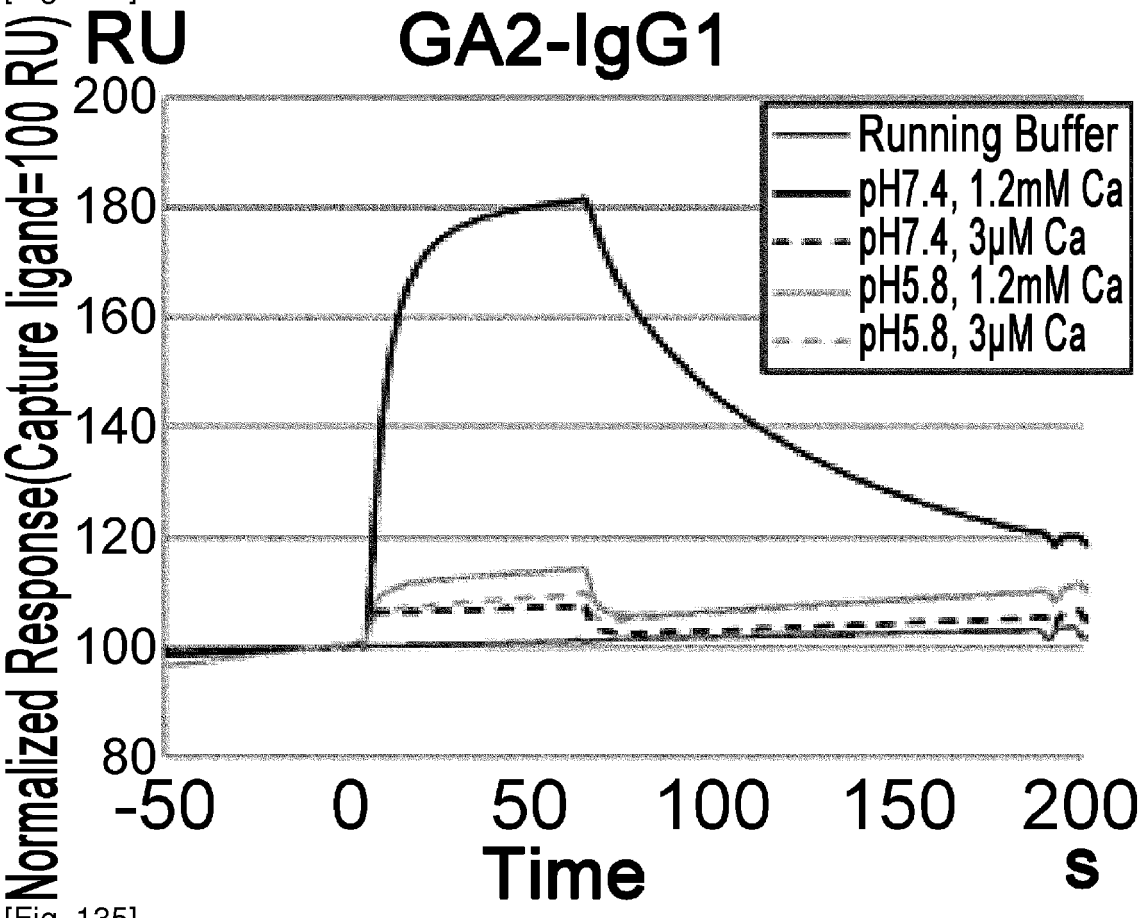
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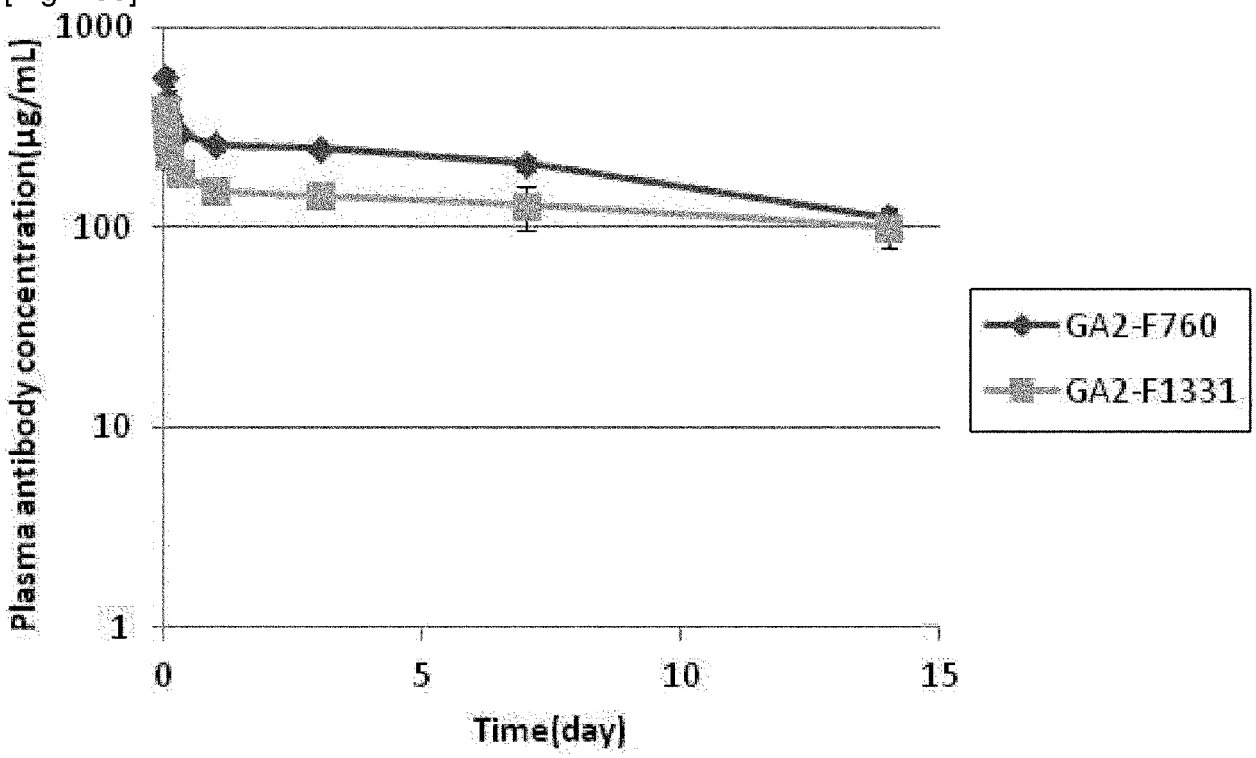
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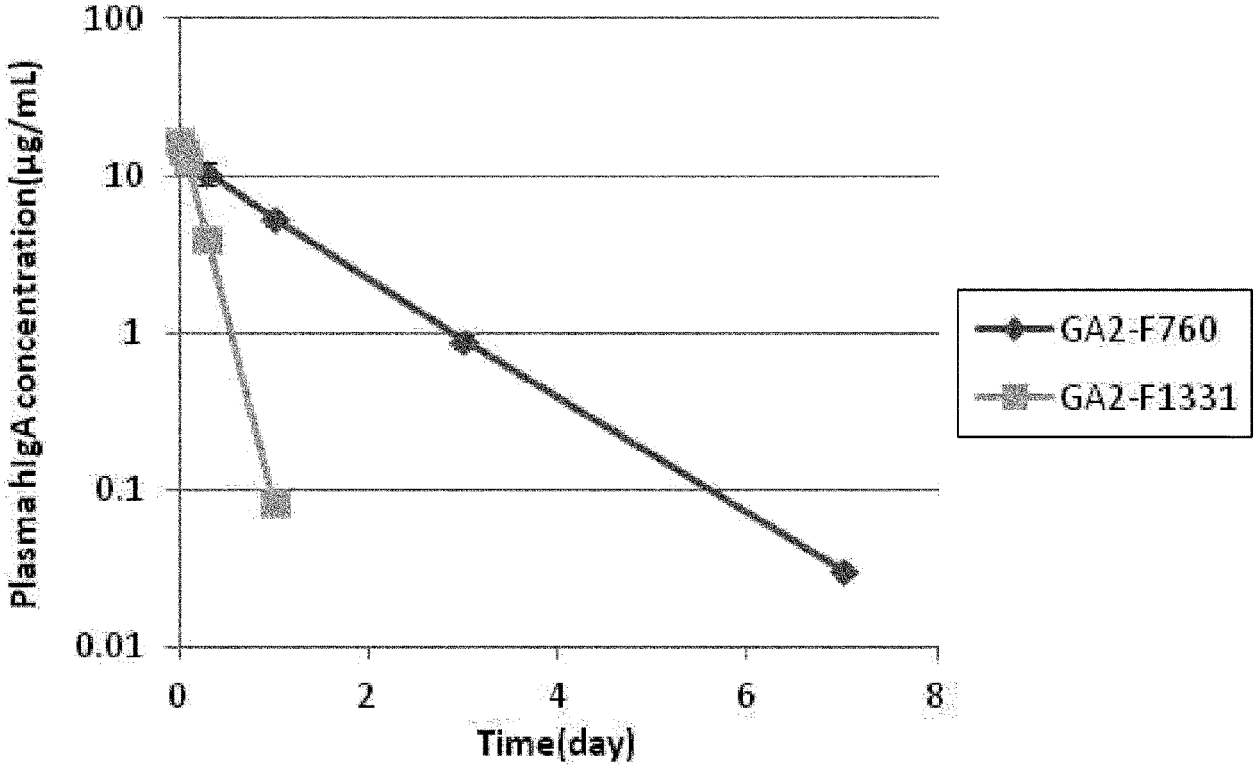
[Fig. 134]



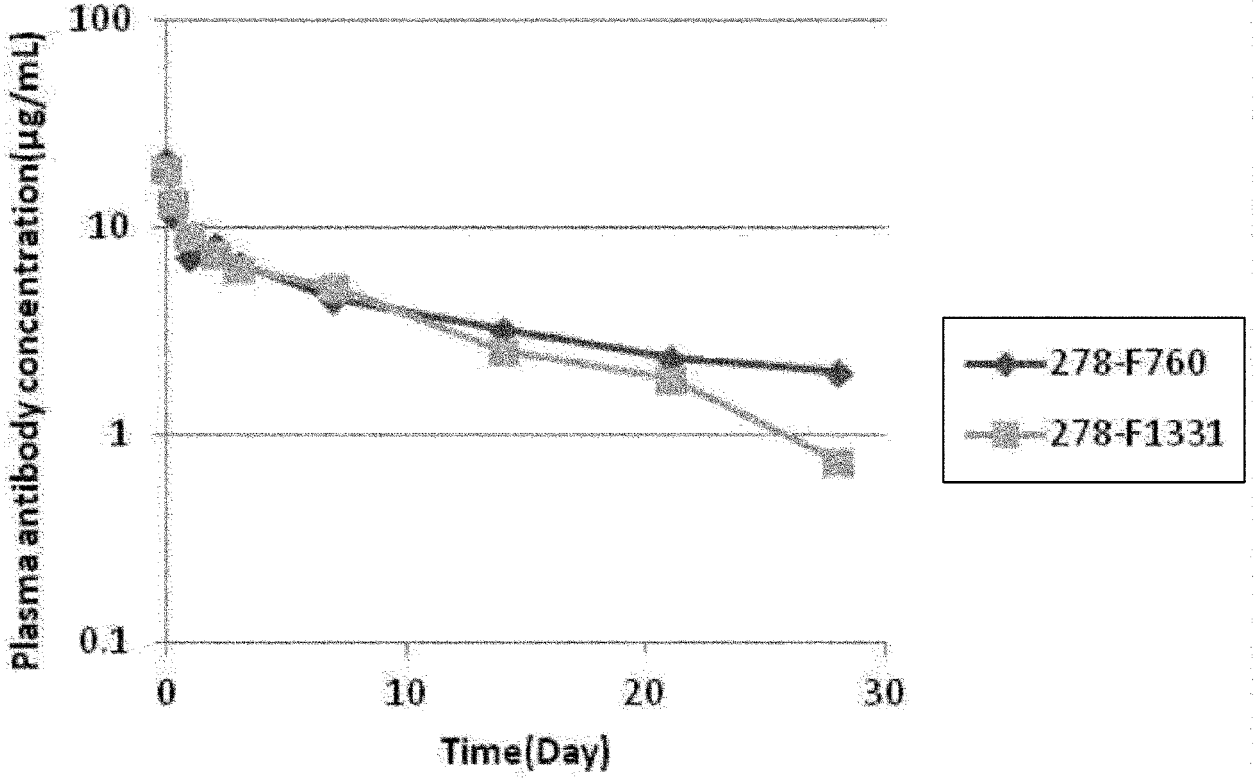
[Fig. 135]



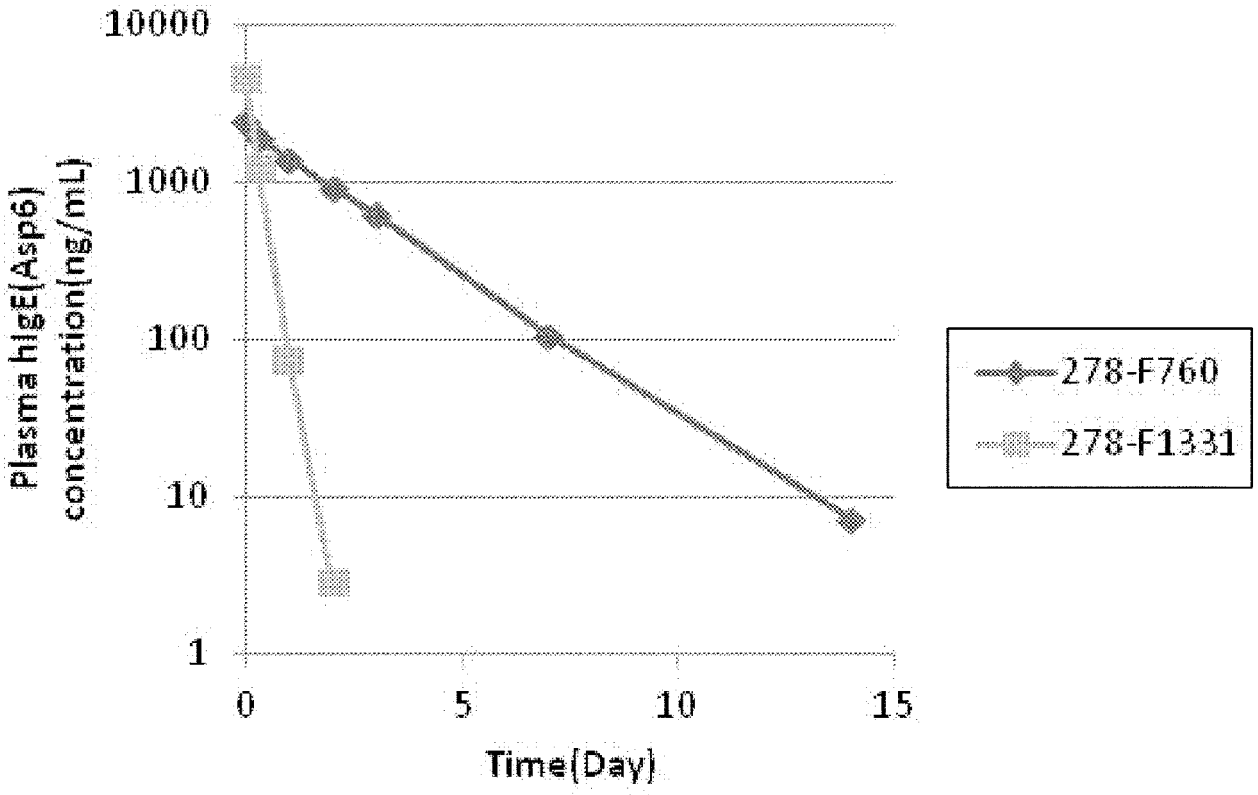
[Fig. 136]



[Fig. 137]



[Fig. 138]


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Plasma hIgE(Asp6) concentration(ng/mL)
0
5
10
15
Time(Day)
278-F760
278-F1331