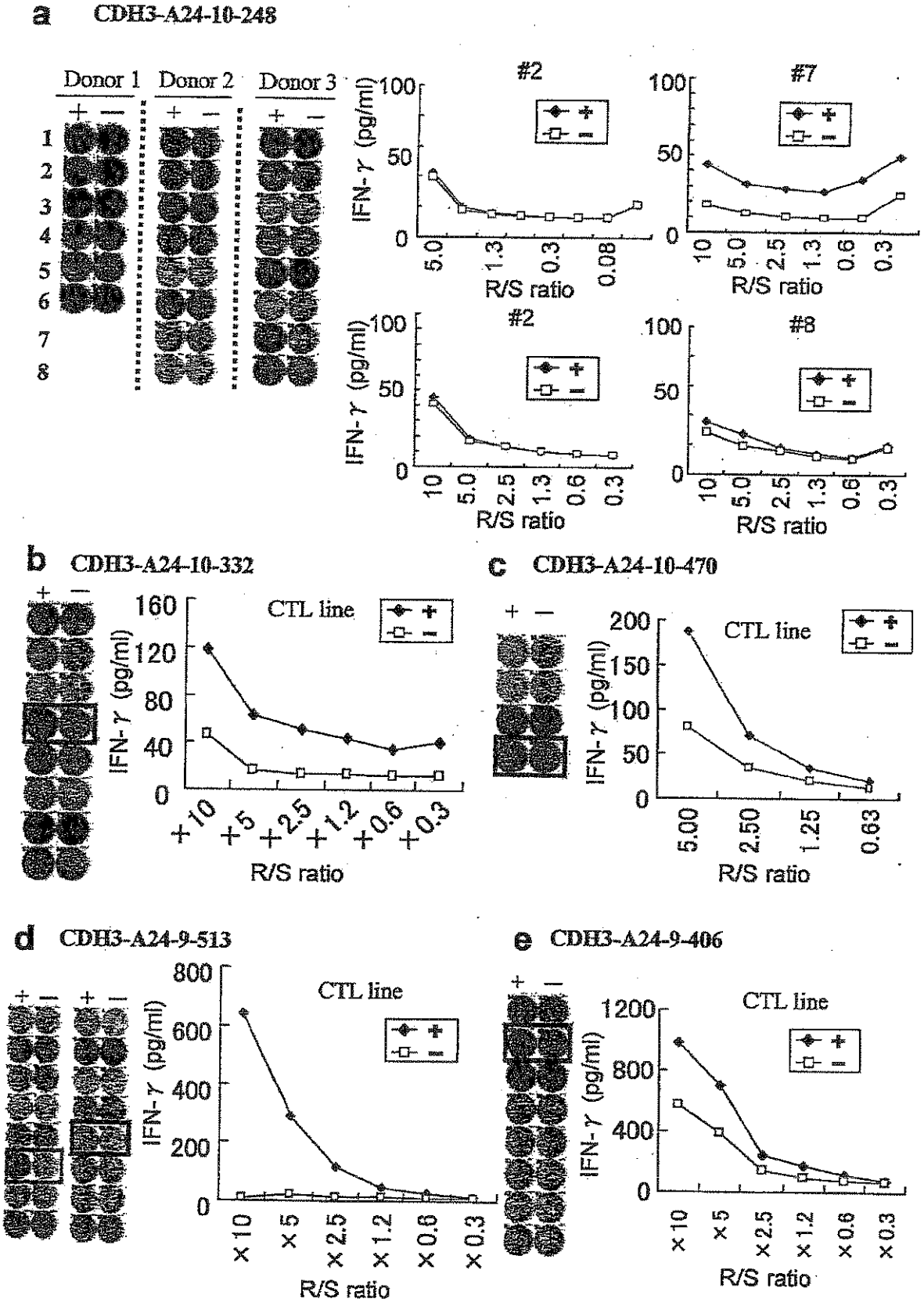
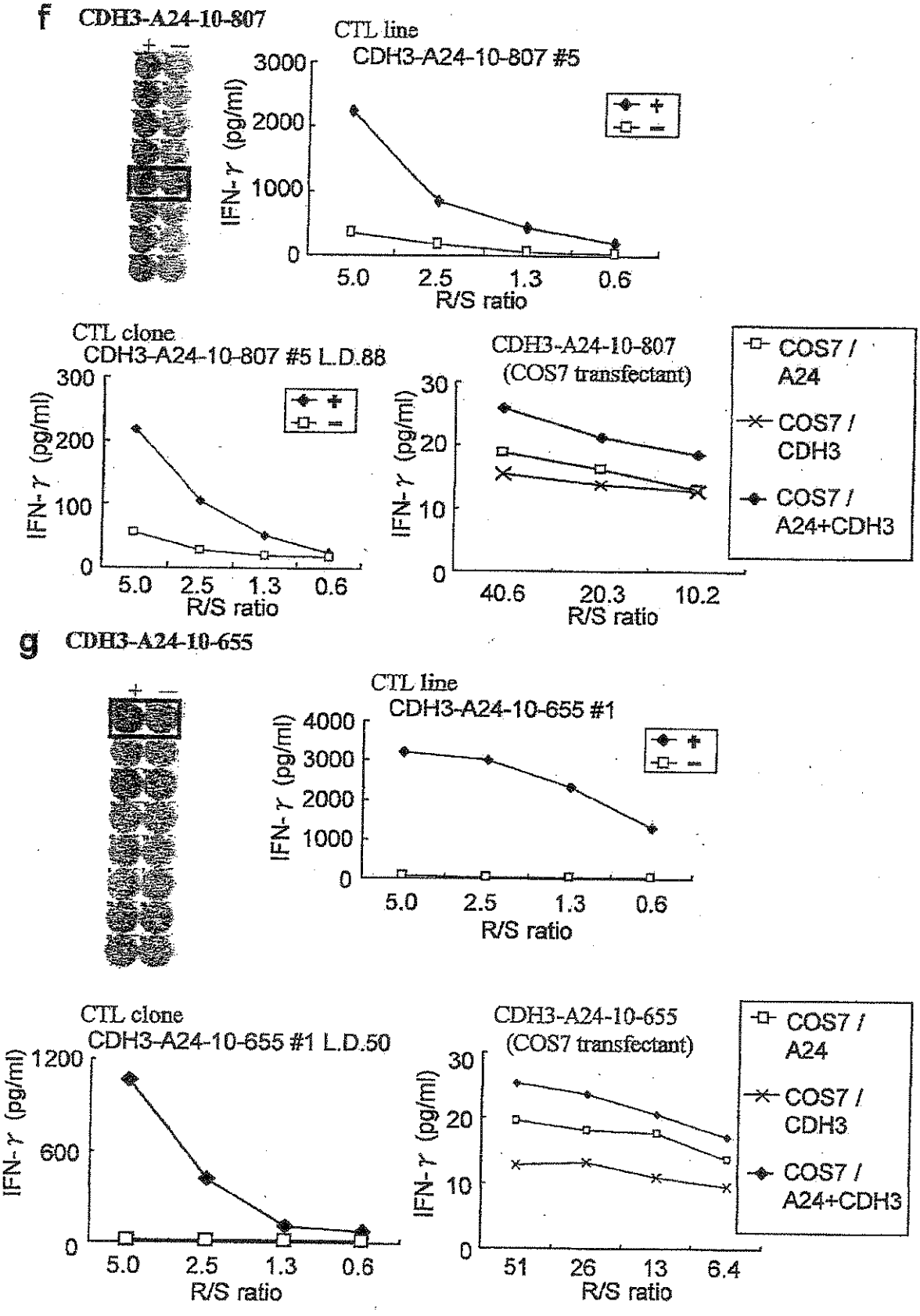
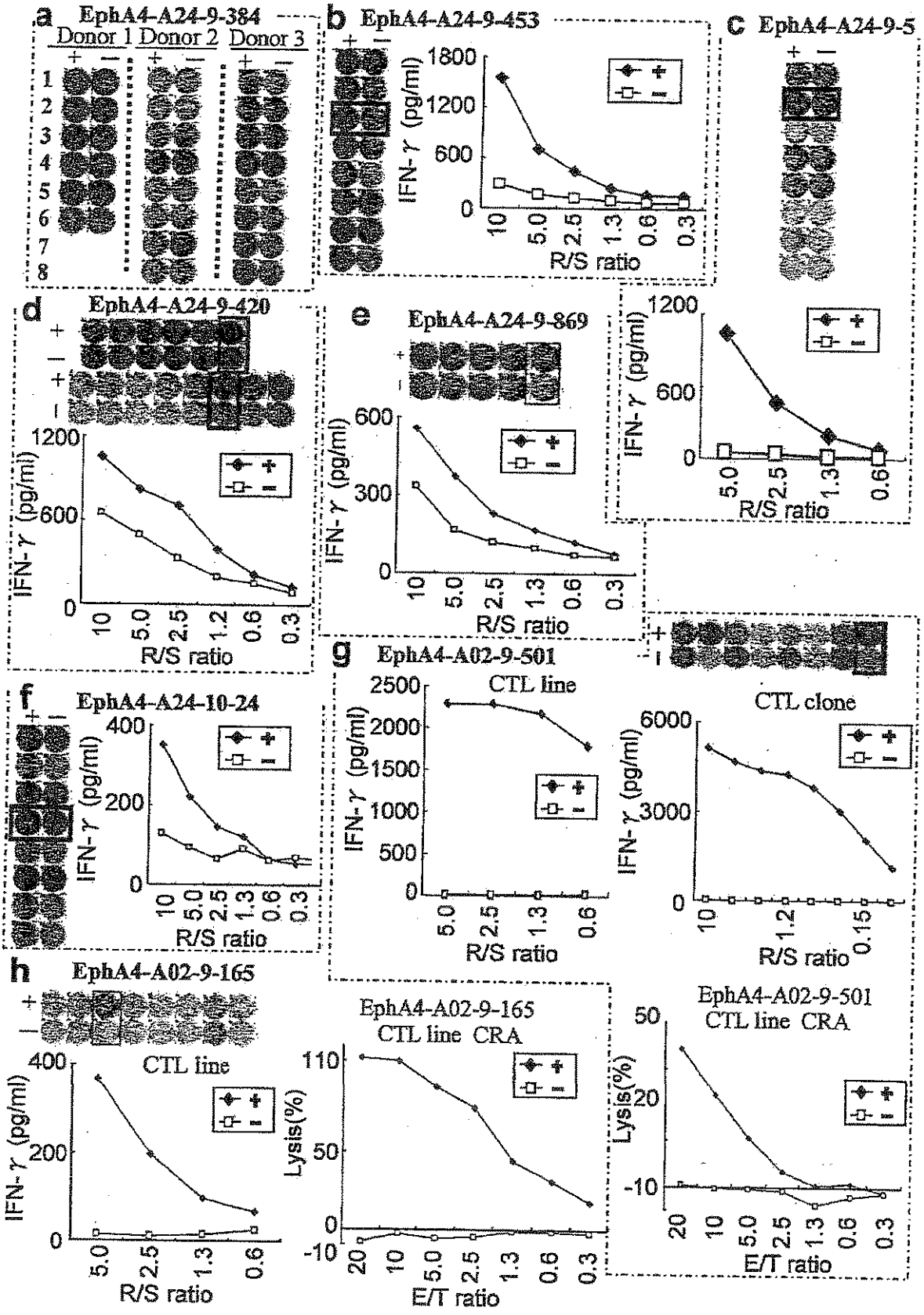
[Fig. 1-1]


a CDH3-A24-10-248
Donor 1
Donor 2
Donor 3
1
2
3
4
5
6
7
8
#2
#7
#2
#8
IFN-γ (pg/ml)
R/S ratio
b CDH3-A24-10-332
CTL line
c CDH3-A24-10-470
CTL line
d CDH3-A24-9-513
CTL line
e CDH3-A24-9-406
CTL line

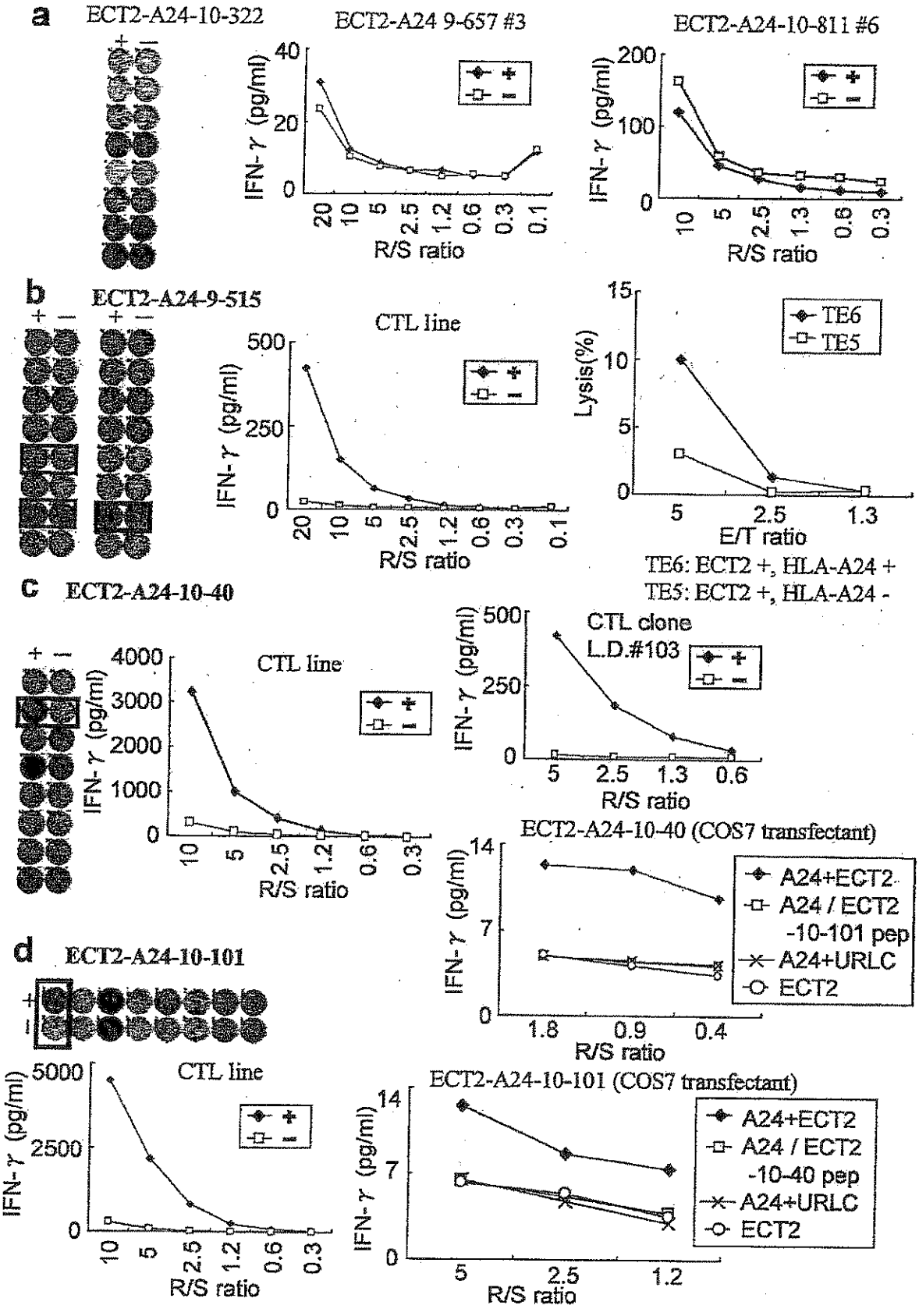
[Fig. 1-2]


f
CDH3-A24-10-807
CTL line
CDH3-A24-10-807 #5
IFN-γ (pg/ml)
3000
2000
1000
0
5.0
2.5
1.3
0.6
R/S ratio
CTL clone
CDH3-A24-10-807 #5 L.D.88
300
200
100
0
CDH3-A24-10-807
(COS7 transfectant)
30
20
10
0
40.6
20.3
10.2
COS7 / A24
COS7 / CDH3
COS7 / A24+CDH3
g
CDH3-A24-10-655
CTL line
CDH3-A24-10-655 #1
4000
CTL clone
CDH3-A24-10-655 #1 L.D.50
1200
600
CDH3-A24-10-655
(COS7 transfectant)
51
26
13
6.4

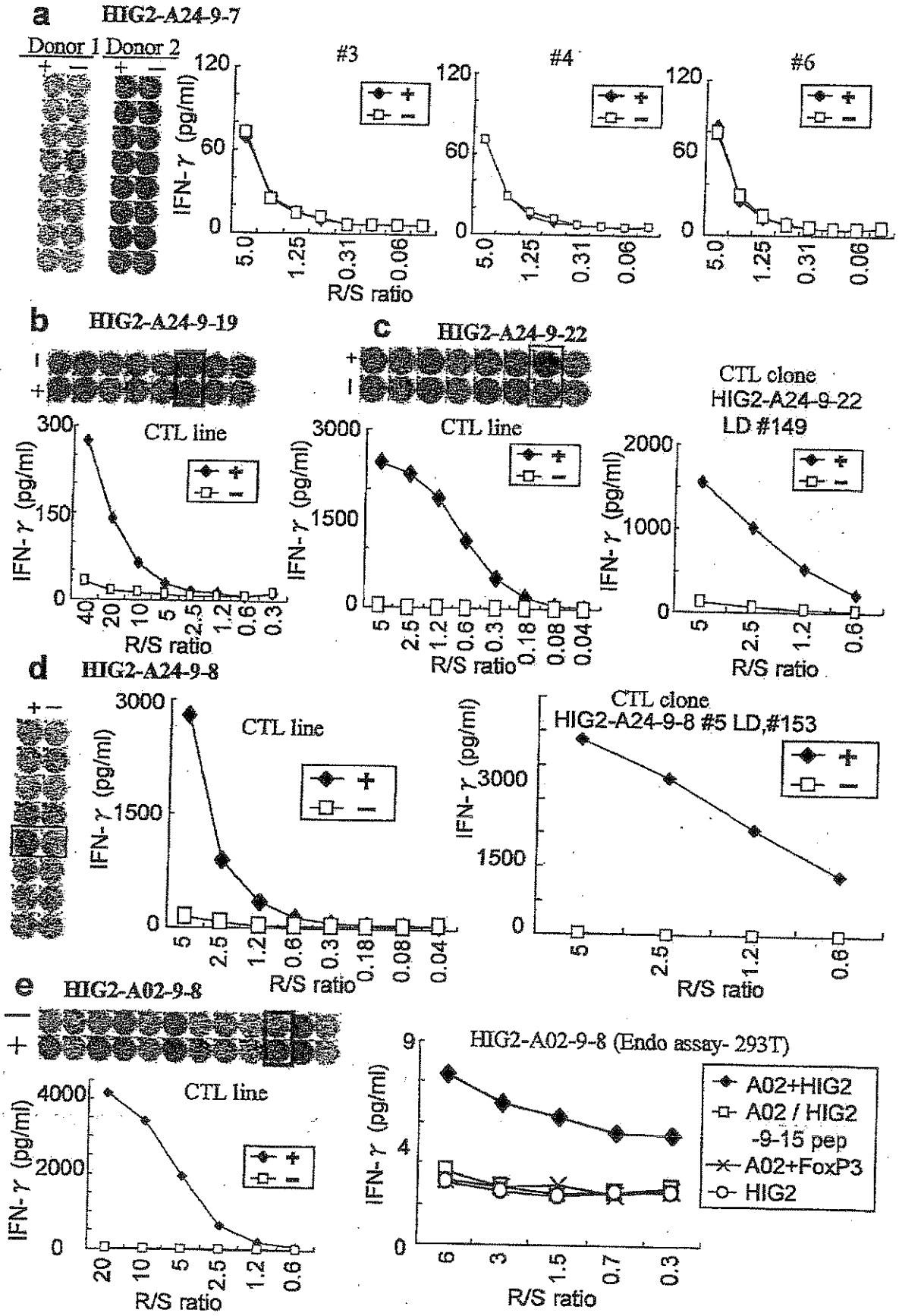
[Fig. 2]


a EphA4-A24-9-384
Donor 1 Donor 2 Donor 3
b EphA4-A24-9-453
IFN-γ (pg/ml)
R/S ratio
c EphA4-A24-9-5
d EphA4-A24-9-420
e EphA4-A24-9-869
f EphA4-A24-10-24
g EphA4-A02-9-501
CTL line
CTL clone
h EphA4-A02-9-165
CTL line
EphA4-A02-9-165
CTL line CRA
EphA4-A02-9-501
CTL line CRA
Lysis(%)
E/T ratio

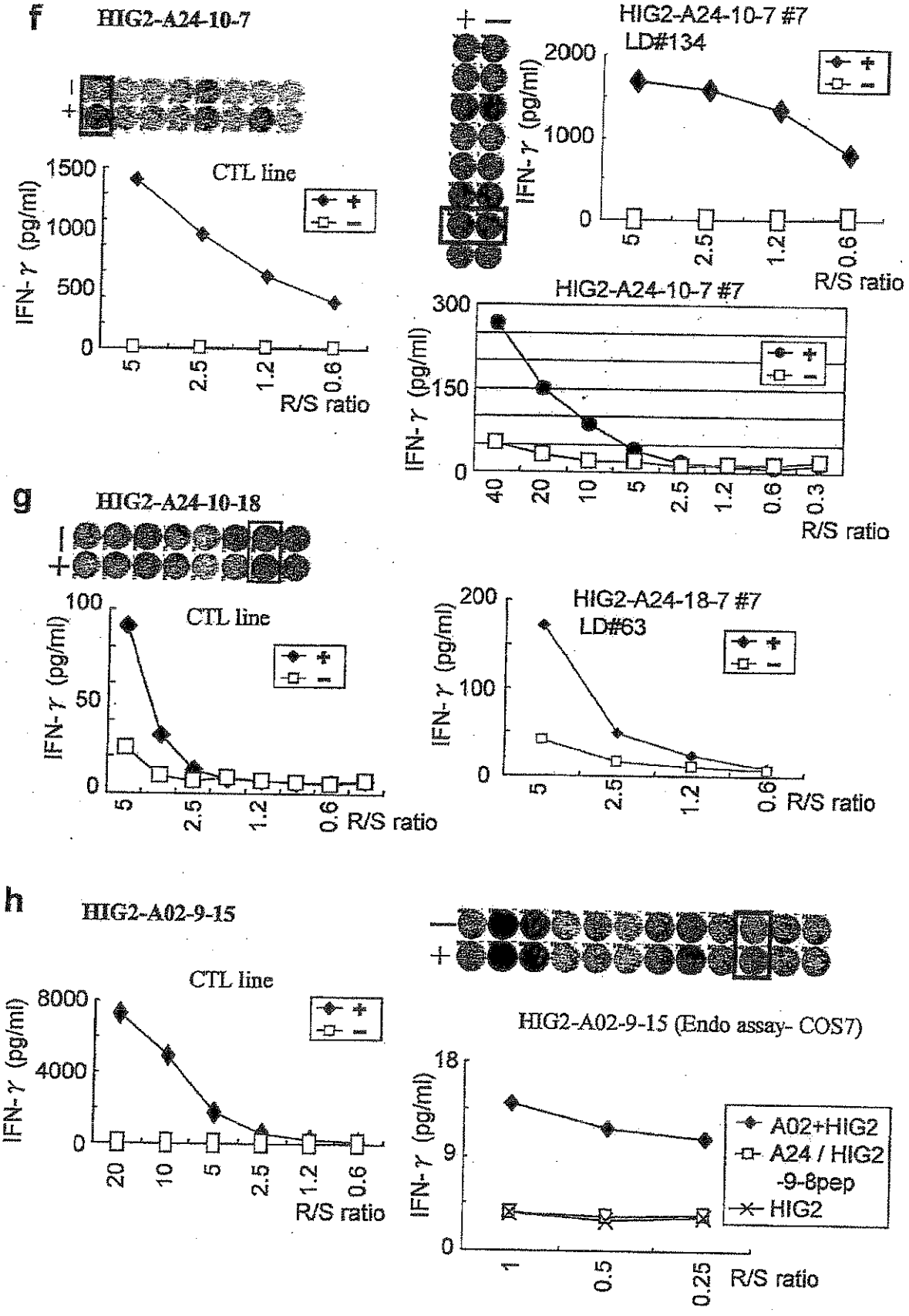
[Fig. 3]


a
ECT2-A24-10-322
ECT2-A24 9-657 #3
ECT2-A24-10-811 #6
IFN-γ (pg/ml)
R/S ratio
b
ECT2-A24-9-515
CTL line
Lysis(%)
TE6
TE5
E/T ratio
TE6: ECT2 +, HLA-A24 +
TE5: ECT2 +, HLA-A24 -
c
ECT2-A24-10-40
CTL line
CTL clone
L.D.#103
ECT2-A24-10-40 (COS7 transfectant)
A24+ECT2
A24 / ECT2
-10-101 pep
A24+URLC
ECT2
d
ECT2-A24-10-101
CTL line
ECT2-A24-10-101 (COS7 transfectant)
A24+ECT2
A24 / ECT2
-10-40 pep
A24+URLC
ECT2

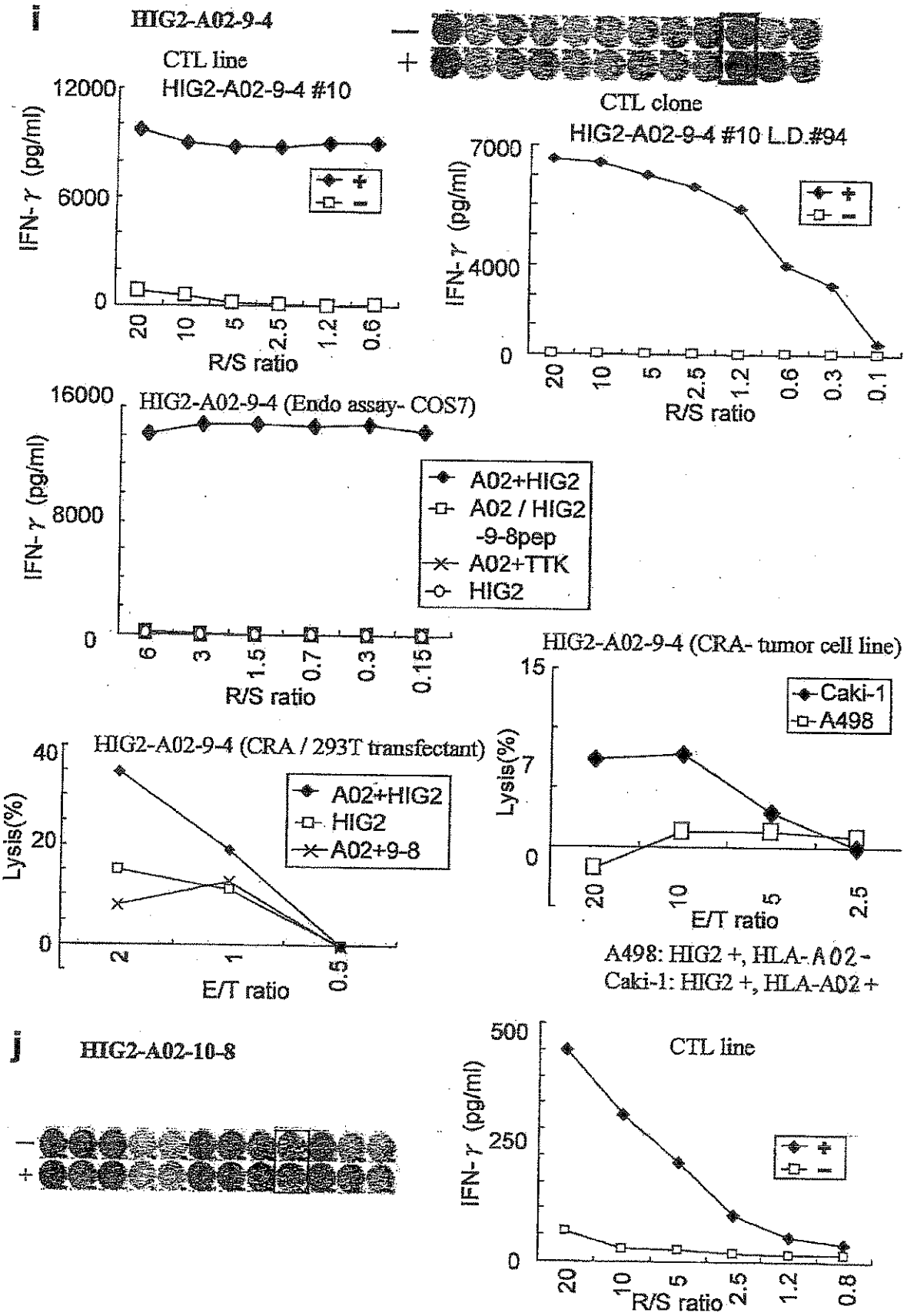
[Fig. 4-1]


a
HIG2-A24-9-7
Donor 1
Donor 2
#3
#4
#6
IFN-γ (pg/ml)
R/S ratio
b
HIG2-A24-9-19
CTL line
c
HIG2-A24-9-22
CTL line
CTL clone
HIG2-A24-9-22
LD #149
d
HIG2-A24-9-8
CTL line
CTL clone
HIG2-A24-9-8 #5 LD,#153
e
HIG2-A02-9-8
CTL line
HIG2-A02-9-8 (Endo assay- 293T)
A02+HIG2
A02 / HIG2 -9-15 pep
A02+FoxP3
HIG2

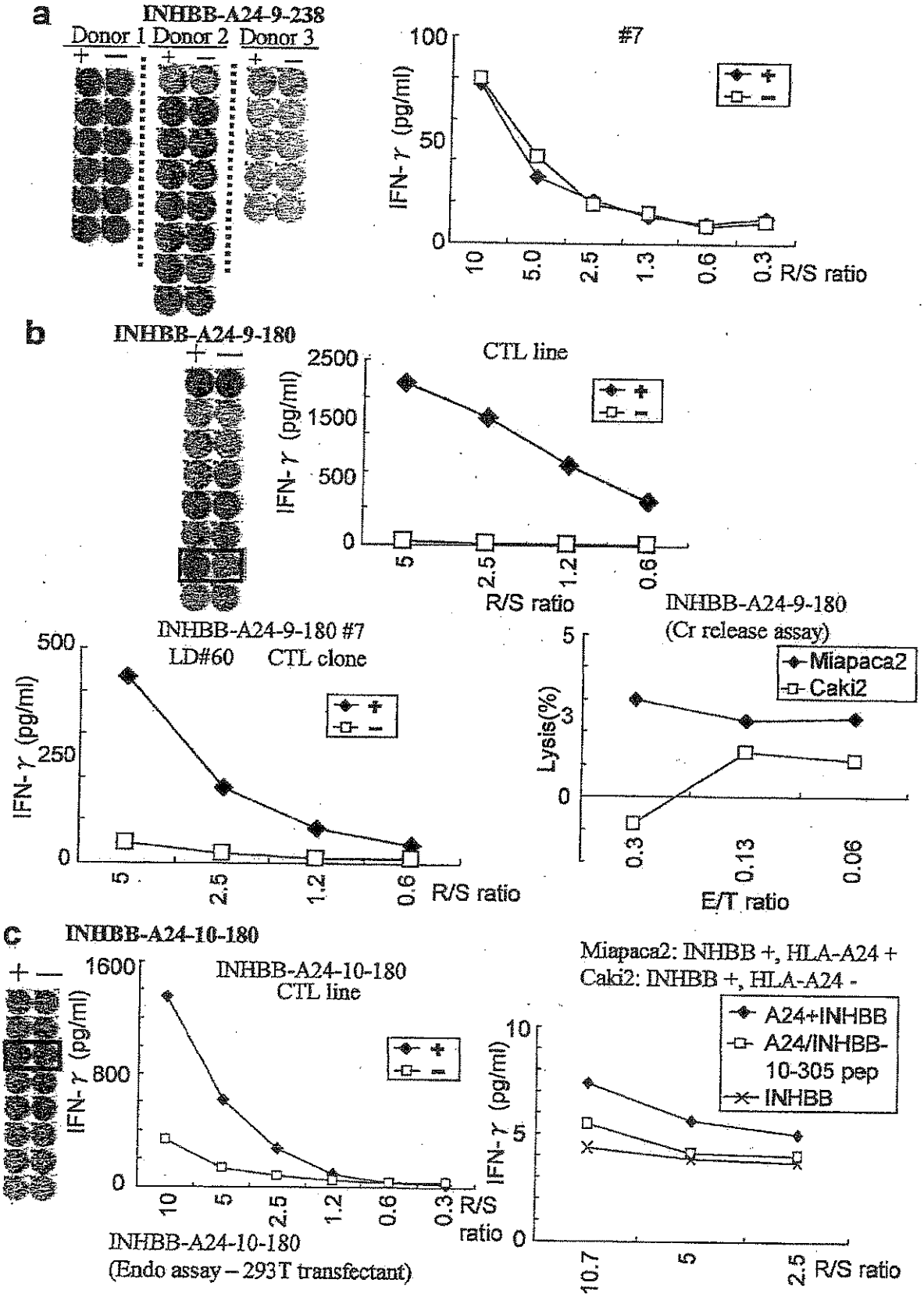
[Fig. 4-2]


f
HIG2-A24-10-7
CTL line
IFN-γ (pg/ml)
R/S ratio
HIG2-A24-10-7 #7
LD#134
HIG2-A24-10-7 #7
g
HIG2-A24-10-18
CTL line
HIG2-A24-18-7 #7
LD#63
h
HIG2-A02-9-15
CTL line
HIG2-A02-9-15 (Endo assay- COS7)
A02+HIG2
A24 / HIG2-9-8pep
HIG2

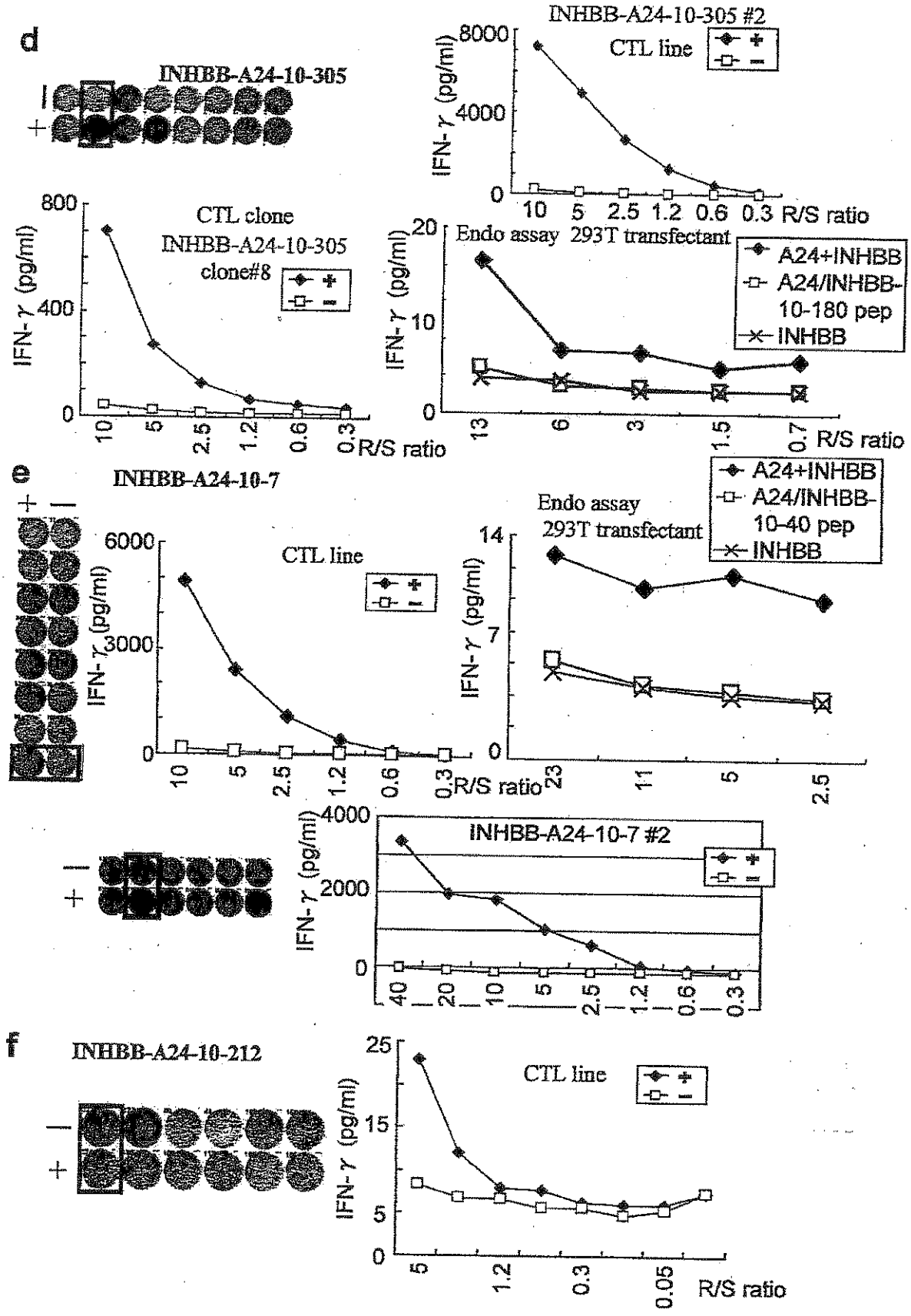
[Fig. 4-3]


i
HIG2-A02-9-4
CTL line
HIG2-A02-9-4 #10
IFN-γ (pg/ml)
12000
6000
0
20
10
5
2.5
1.2
0.6
R/S ratio
CTL clone
HIG2-A02-9-4 #10 L.D.#94
7000
4000
0
0.3
0.1
HIG2-A02-9-4 (Endo assay- COS7)
16000
8000
A02+HIG2
A02 / HIG2 -9-8pep
A02+TTK
HIG2
6
3
1.5
0.7
0.3
0.15
HIG2-A02-9-4 (CRA- tumor cell line)
15
7
Caki-1
A498
Lysis(%)
E/T ratio
HIG2-A02-9-4 (CRA / 293T transfectant)
40
20
A02+HIG2
HIG2
A02+9-8
2
1
0.5
A498: HIG2 +, HLA-A02-
Caki-1: HIG2 +, HLA-A02+
j
HIG2-A02-10-8
500
250
CTL line
0.8

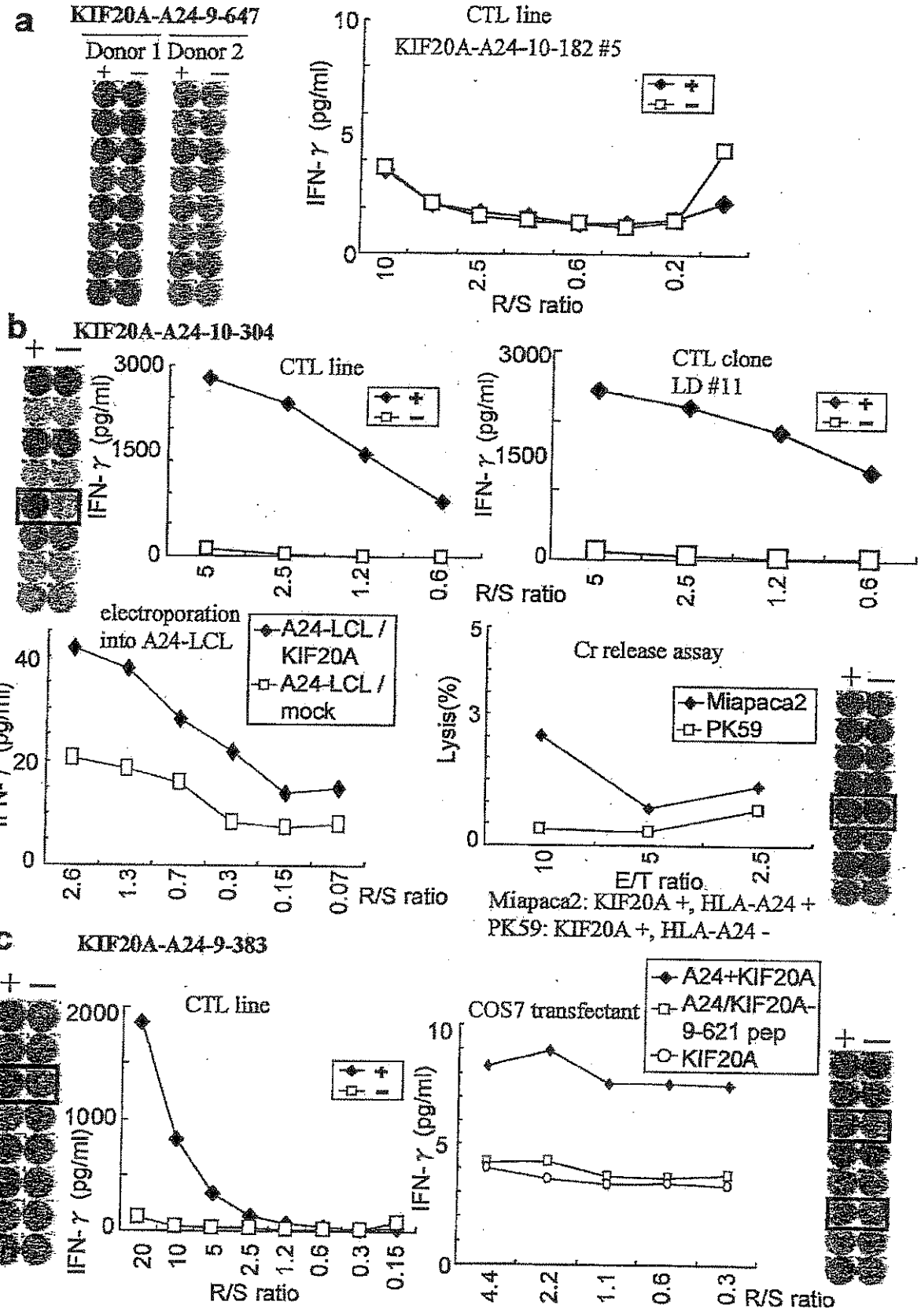
[Fig. 5-1]


a
INHBB-A24-9-238
Donor 1 Donor 2 Donor 3
+ − + − +
#7
IFN-γ (pg/ml)
100
50
0
10 5.0 2.5 1.3 0.6 0.3
R/S ratio
b
INHBB-A24-9-180
CTL line
IFN-γ (pg/ml)
2500
1500
500
0
5 2.5 1.2 0.6
R/S ratio
INHBB-A24-9-180 #7
LD#60 CTL clone
IFN-γ (pg/ml)
500
250
0
5 2.5 1.2 0.6
R/S ratio
INHBB-A24-9-180
(Cr release assay)
Miapaca2
Caki2
Lysis(%)
5
3
0
0.3 0.13 0.06
E/T ratio
c
INHBB-A24-10-180
INHBB-A24-10-180
CTL line
IFN-γ (pg/ml)
1600
800
0
10 5 2.5 1.2 0.6 0.3
R/S ratio
INHBB-A24-10-180
(Endo assay – 293T transfectant)
Miapaca2: INHBB +, HLA-A24 +
Caki2: INHBB +, HLA-A24 -
A24+INHBB
A24/INHBB-10-305 pep
INHBB
IFN-γ (pg/ml)
10
5
0
10.7 5 2.5
R/S ratio

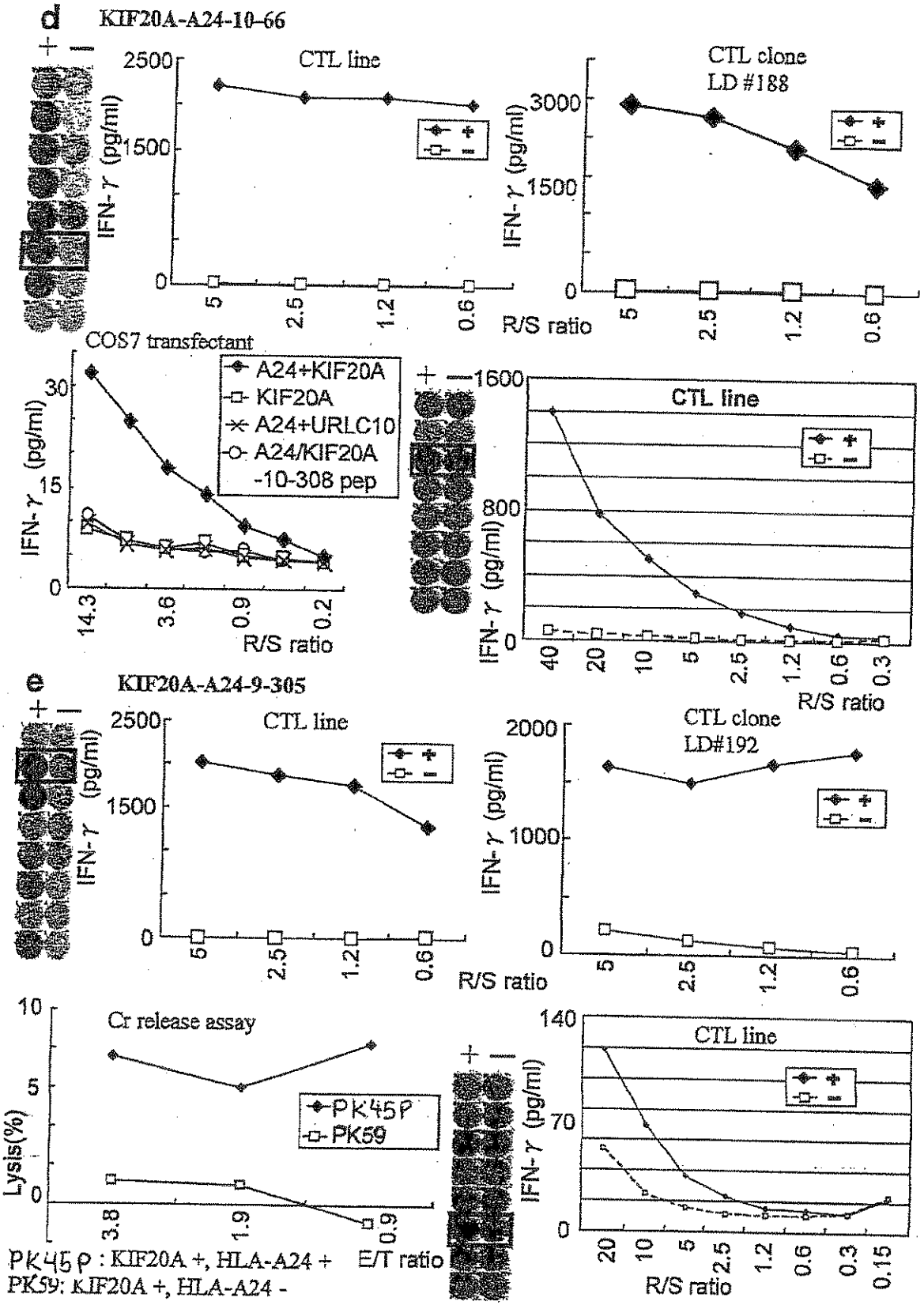
[Fig. 5-2]


d
INHBB-A24-10-305
INHBB-A24-10-305 #2
CTL line
IFN-γ (pg/ml)
8000
4000
0
10 5 2.5 1.2 0.6 0.3 R/S ratio
CTL clone
INHBB-A24-10-305
clone#8
800
400
0
Endo assay 293T transfectant
A24+INHBB
A24/INHBB-10-180 pep
INHBB
20
10
13 6 3 1.5 0.7 R/S ratio
e
INHBB-A24-10-7
6000
3000
Endo assay
293T transfectant
A24+INHBB
A24/INHBB-10-40 pep
INHBB
14
7
23 11 5 2.5
INHBB-A24-10-7 #2
4000
2000
40 20 10 5 2.5 1.2 0.6 0.3
f
INHBB-A24-10-212
25
15
5
0
5 1.2 0.3 0.05 R/S ratio

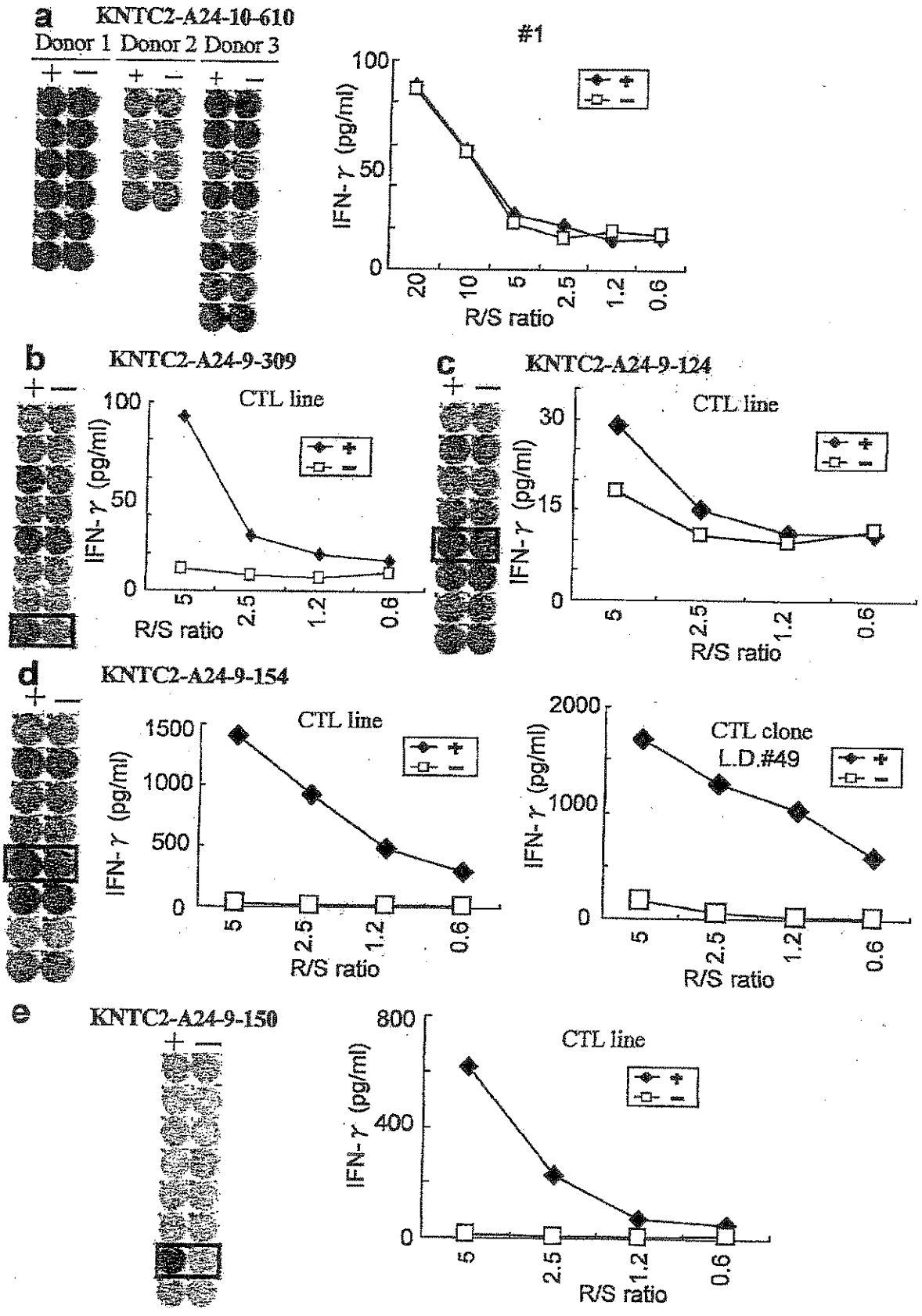
[Fig. 6-1]


a
KIF20A-A24-9-647
Donor 1 Donor 2
+ −
CTL line
KIF20A-A24-10-182 #5
IFN-γ (pg/ml)
10
5
0
10
2.5
0.6
0.2
R/S ratio
b
KIF20A-A24-10-304
CTL line
3000
1500
0
5
2.5
1.2
0.6
CTL clone
LD #11
electroporation
into A24-LCL
A24-LCL / KIF20A
A24-LCL / mock
40
20
2.6
1.3
0.7
0.3
0.15
0.07
Cr release assay
Lysis(%)
Miapaca2
PK59
E/T ratio
Miapaca2: KIF20A +, HLA-A24 +
PK59: KIF20A +, HLA-A24 -
c
KIF20A-A24-9-383
CTL line
2000
1000
20
10
5
2.5
1.2
0.6
0.3
0.15
COS7 transfectant
A24+KIF20A
A24/KIF20A-9-621 pep
KIF20A
4.4
2.2
1.1
0.6
0.3

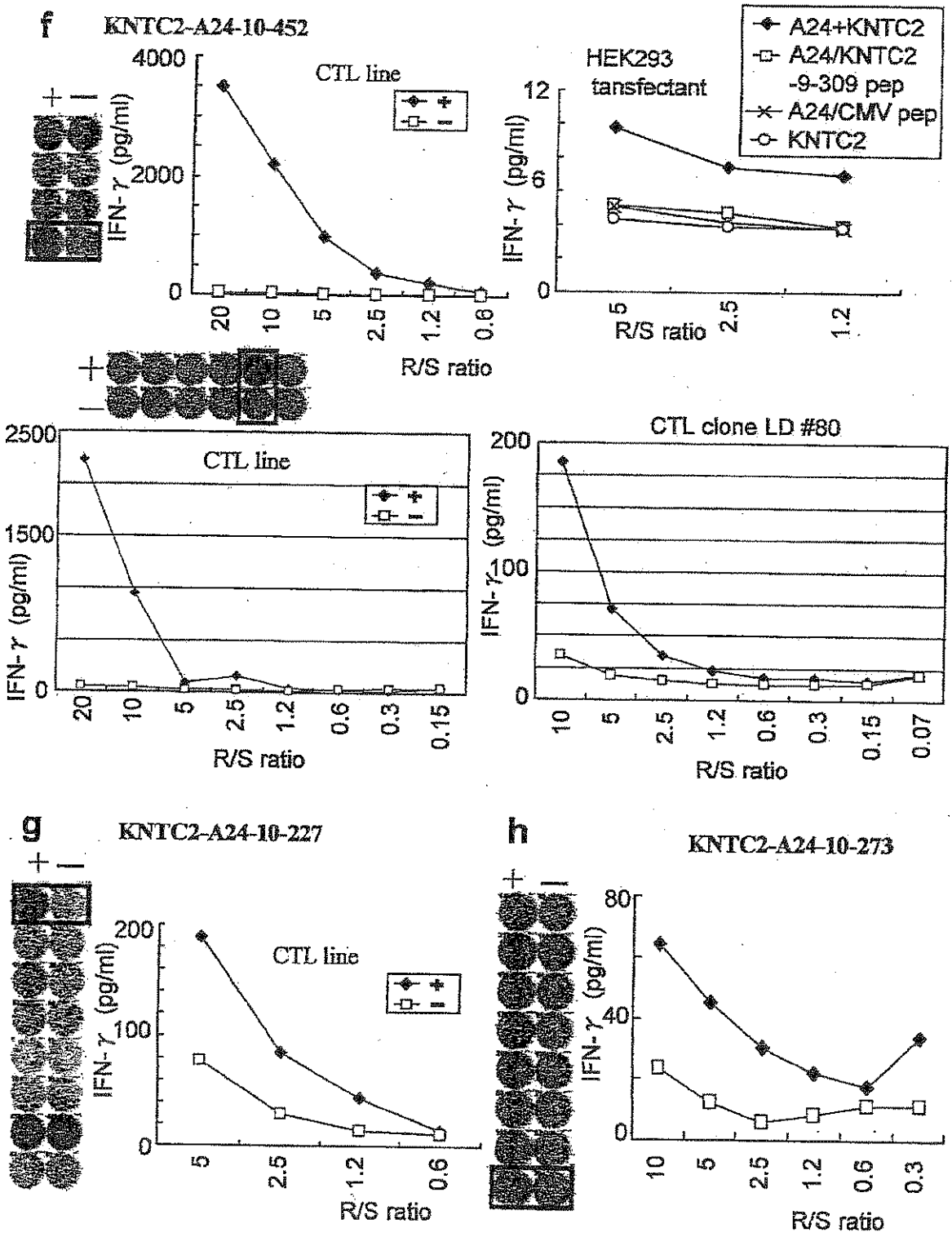
[Fig. 6-2]


d
KIF20A-A24-10-66
CTL line
IFN-γ (pg/ml)
2500
1500
0
5
2.5
1.2
0.6
R/S ratio
CTL clone
LD #188
3000
1500
0
COS7 transfectant
A24+KIF20A
KIF20A
A24+URLC10
A24/KIF20A
-10-308 pep
30
15
0
14.3
3.6
0.9
0.2
1600
800
40
20
10
0.3
e
KIF20A-A24-9-305
CTL line
CTL clone
LD#192
2000
1000
Cr release assay
Lysis(%)
10
5
PK45P
PK59
3.8
1.9
0.9
E/T ratio
140
70
20
0.15
PK45P : KIF20A +, HLA-A24 +
PK59: KIF20A +, HLA-A24 -

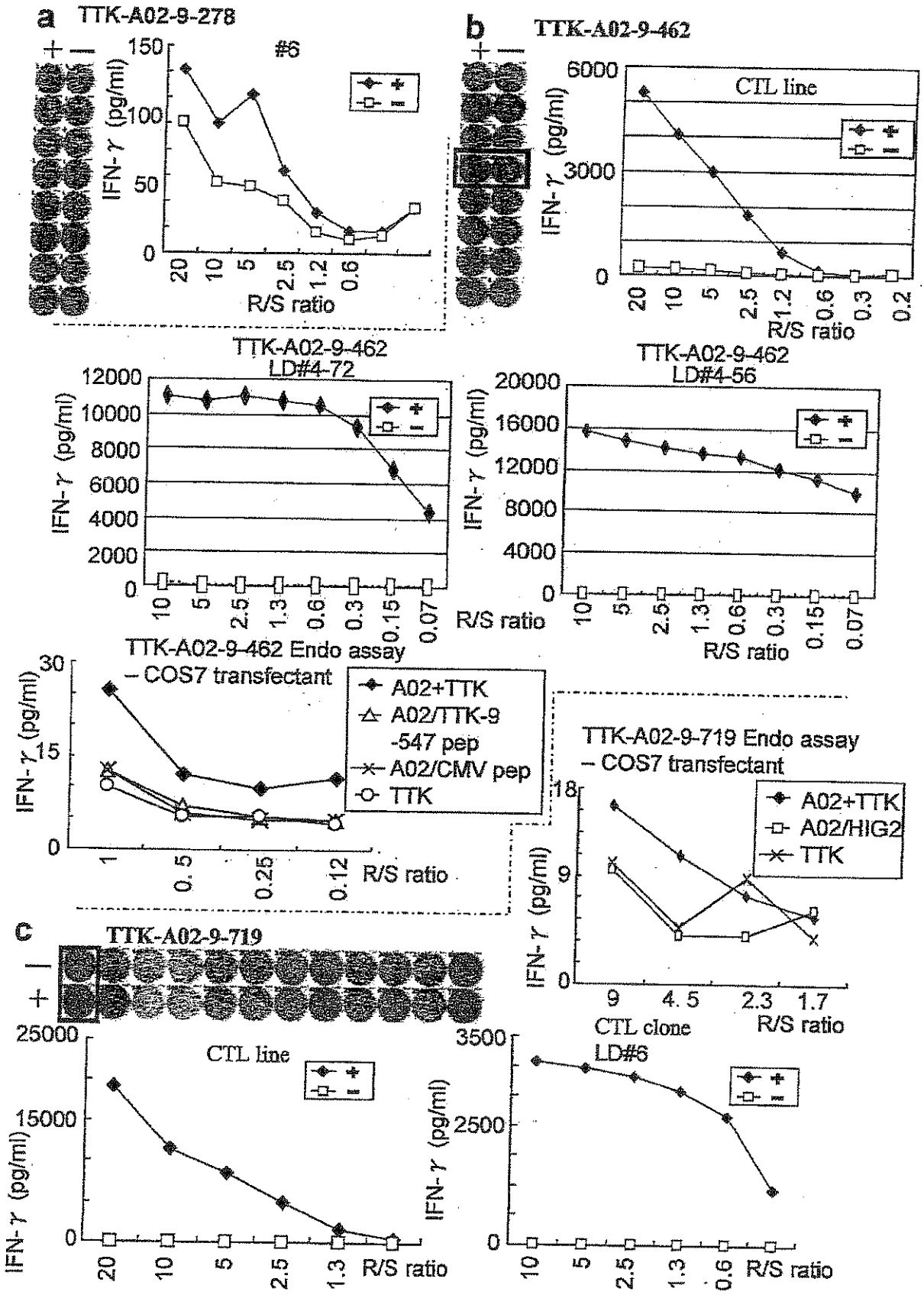
[Fig. 7-1]


a
KNTC2-A24-10-610
Donor 1
Donor 2
Donor 3
+
−
#1
IFN-γ (pg/ml)
100
50
0
20
10
5
2.5
1.2
0.6
R/S ratio
b
KNTC2-A24-9-309
CTL line
c
KNTC2-A24-9-124
CTL line
30
15
d
KNTC2-A24-9-154
CTL line
1500
1000
500
CTL clone
L.D.#49
2000
e
KNTC2-A24-9-150
CTL line
800
400

[Fig. 7-2]

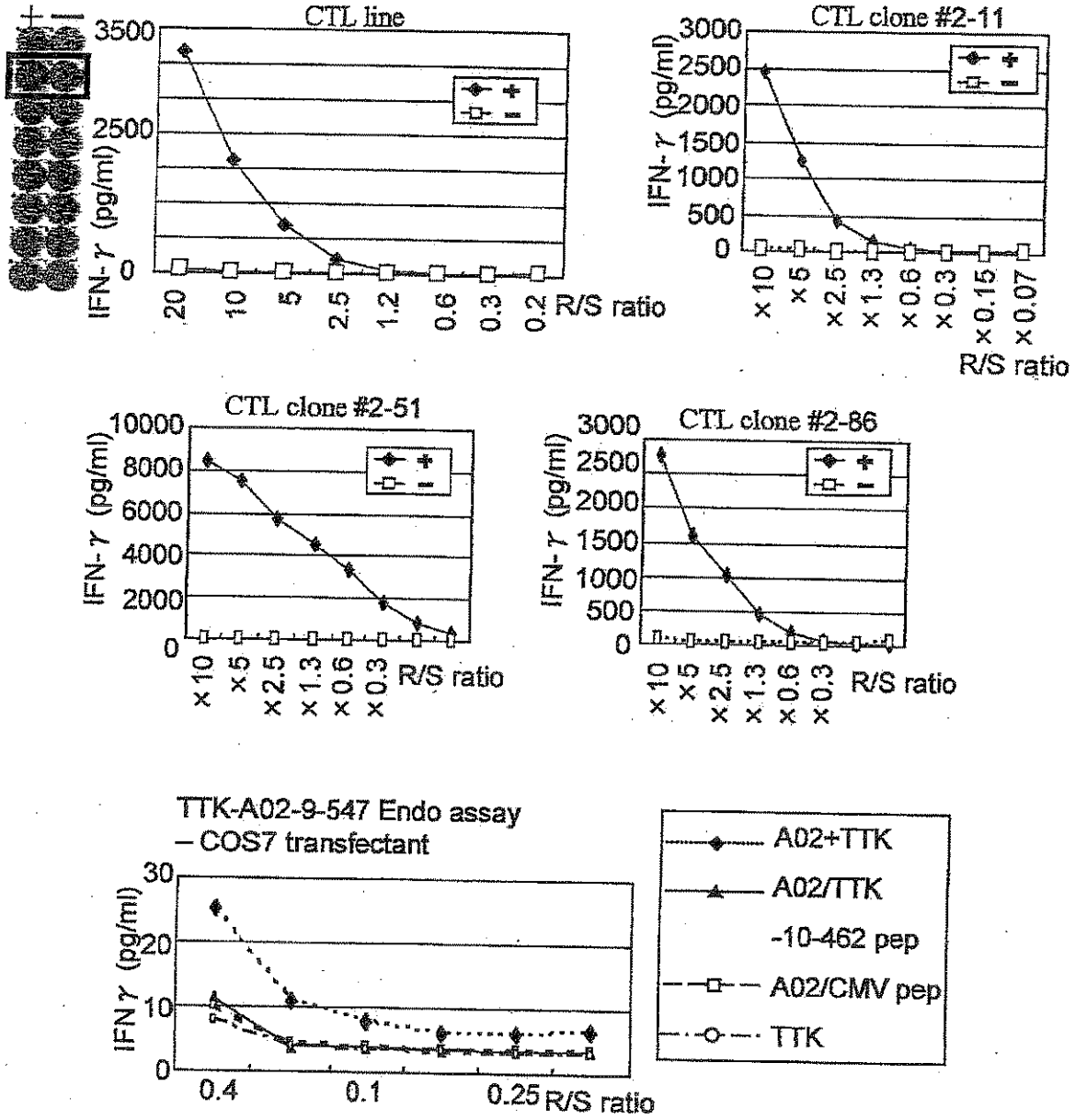

f
KNTC2-A24-10-452
CTL line
IFN-γ (pg/ml)
R/S ratio
HEK293 tansfectant
A24+KNTC2
A24/KNTC2 -9-309 pep
A24/CMV pep
KNTC2
CTL clone LD #80
g
KNTC2-A24-10-227
h
KNTC2-A24-10-273

[Fig. 8-1]

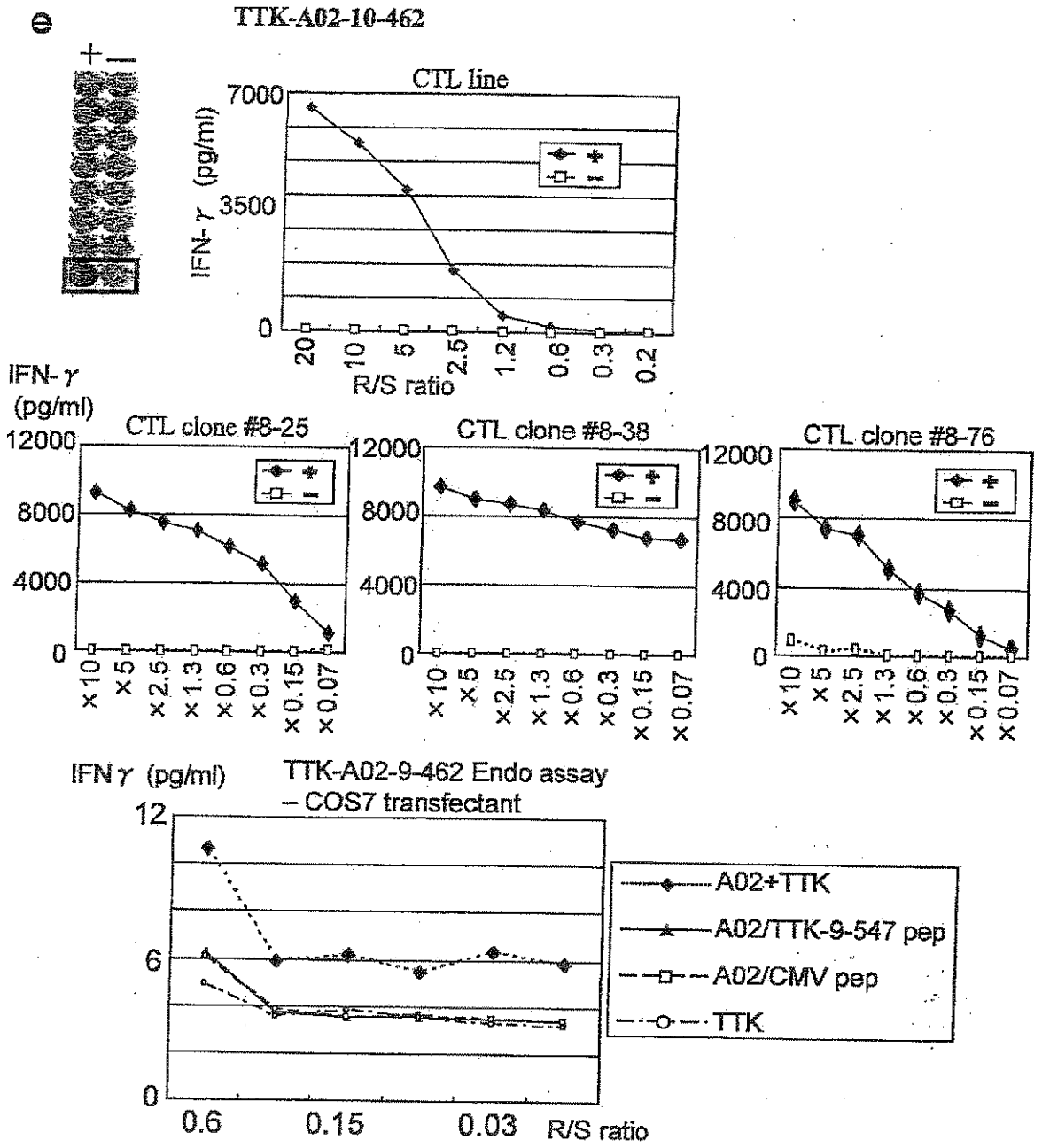

a
TTK-A02-9-278
#6
IFN-γ (pg/ml)
R/S ratio
b
TTK-A02-9-462
CTL line
IFN-γ (pg/ml)
R/S ratio
TTK-A02-9-462
LD#4-72
IFN-γ (pg/ml)
TTK-A02-9-462
LD#4-56
IFN-γ (pg/ml)
R/S ratio
TTK-A02-9-462 Endo assay
– COS7 transfectant
A02+TTK
A02/TTK-9
-547 pep
A02/CMV pep
TTK
IFN-γ (pg/ml)
R/S ratio
TTK-A02-9-719 Endo assay
– COS7 transfectant
A02+TTK
A02/HIG2
TTK
IFN-γ (pg/ml)
CTL clone
R/S ratio
c
TTK-A02-9-719
CTL line
IFN-γ (pg/ml)
R/S ratio
LD#6
IFN-γ (pg/ml)
R/S ratio

[Fig. 8-2]

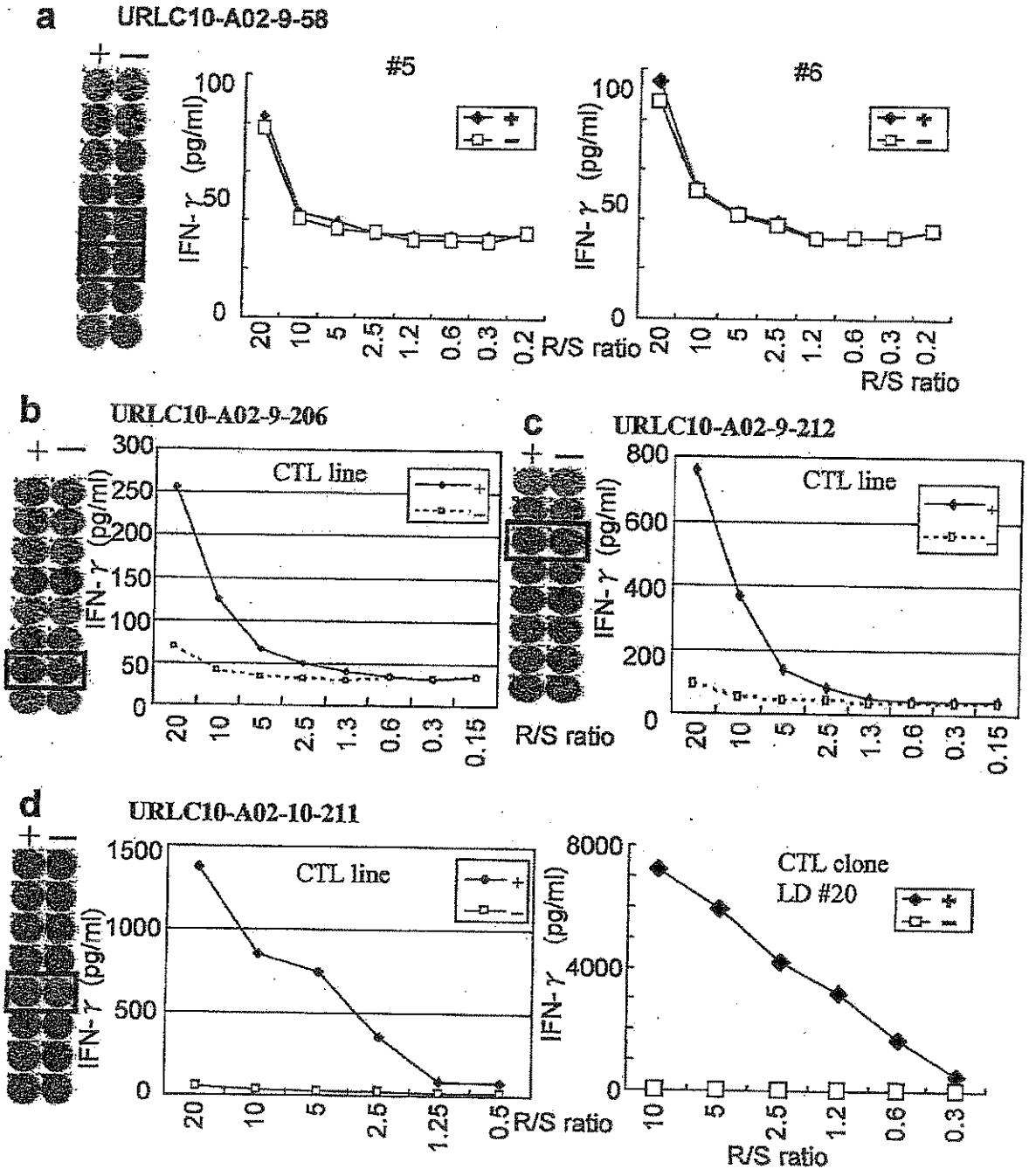
d TTK-A02-9-547



[Fig. 8-3]


e
TTK-A02-10-462
+
−
CTL line
IFN-γ (pg/ml)
7000
3500
0
20
10
5
2.5
1.2
0.6
0.3
0.2
R/S ratio
IFN-γ (pg/ml)
CTL clone #8-25
CTL clone #8-38
CTL clone #8-76
12000
8000
4000
0
×10
×5
×2.5
×1.3
×0.6
×0.3
×0.15
×0.07
IFNγ (pg/ml)
TTK-A02-9-462 Endo assay
– COS7 transfectant
12
6
0
0.6
0.15
0.03
R/S ratio
A02+TTK
A02/TTK-9-547 pep
A02/CMV pep
TTK

[Fig. 9-1]


a
URLC10-A02-9-58
#5
#6
IFN-γ (pg/ml)
R/S ratio
b
URLC10-A02-9-206
CTL line
c
URLC10-A02-9-212
CTL line
d
URLC10-A02-10-211
CTL line
CTL clone
LD #20

[Fig. 9-2]

Continuation of d

CTL line stimulated by URLC10-A02-10-211 recognized endogenously URLC10 expressed target cells with HLA-A02

