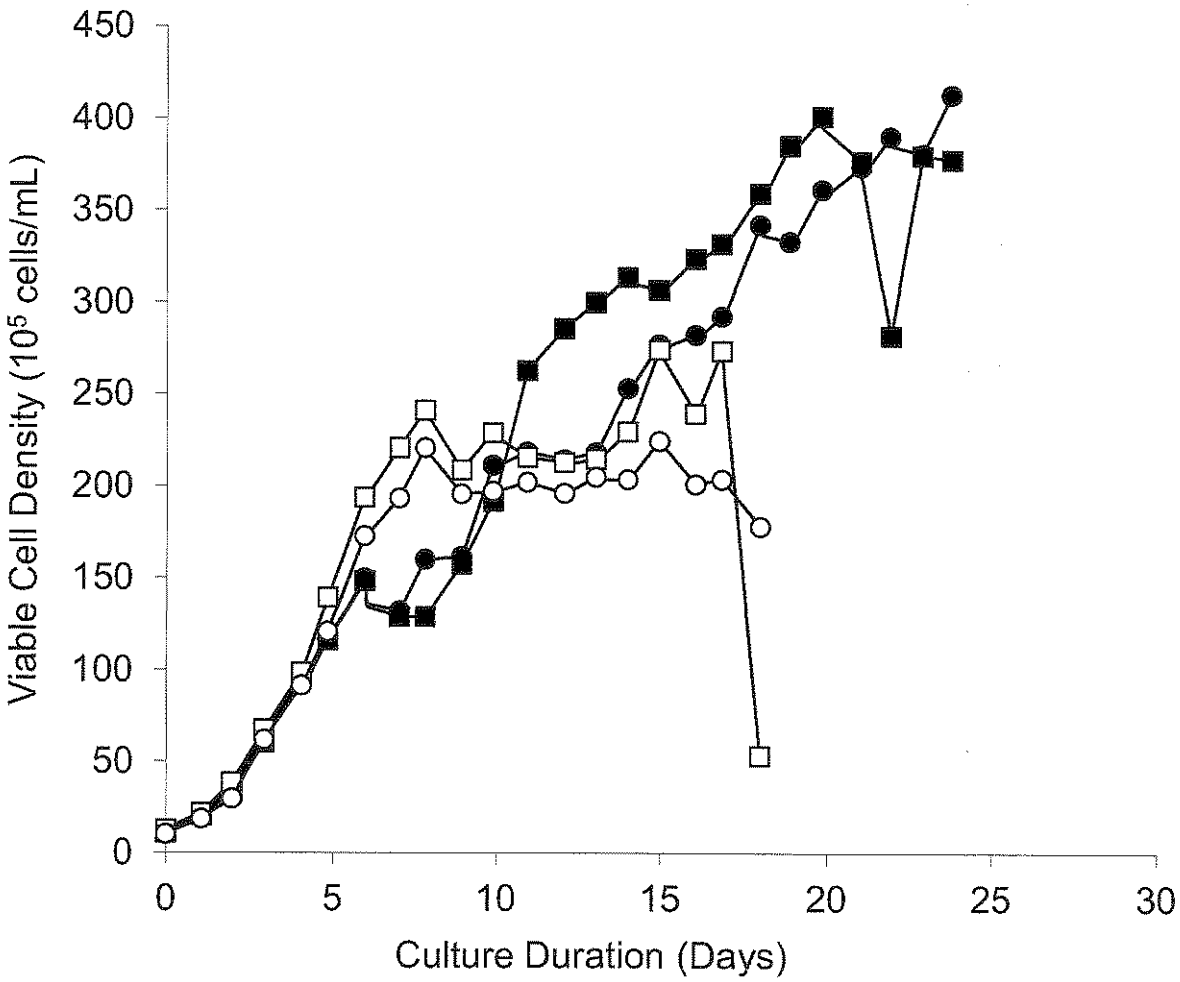

Viable Cell Density (10^5 cells/mL)
450
400
350
300
250
200
150
100
50
0
0
5
10
15
20
25
30
Culture Duration (Days)

Figure 1A

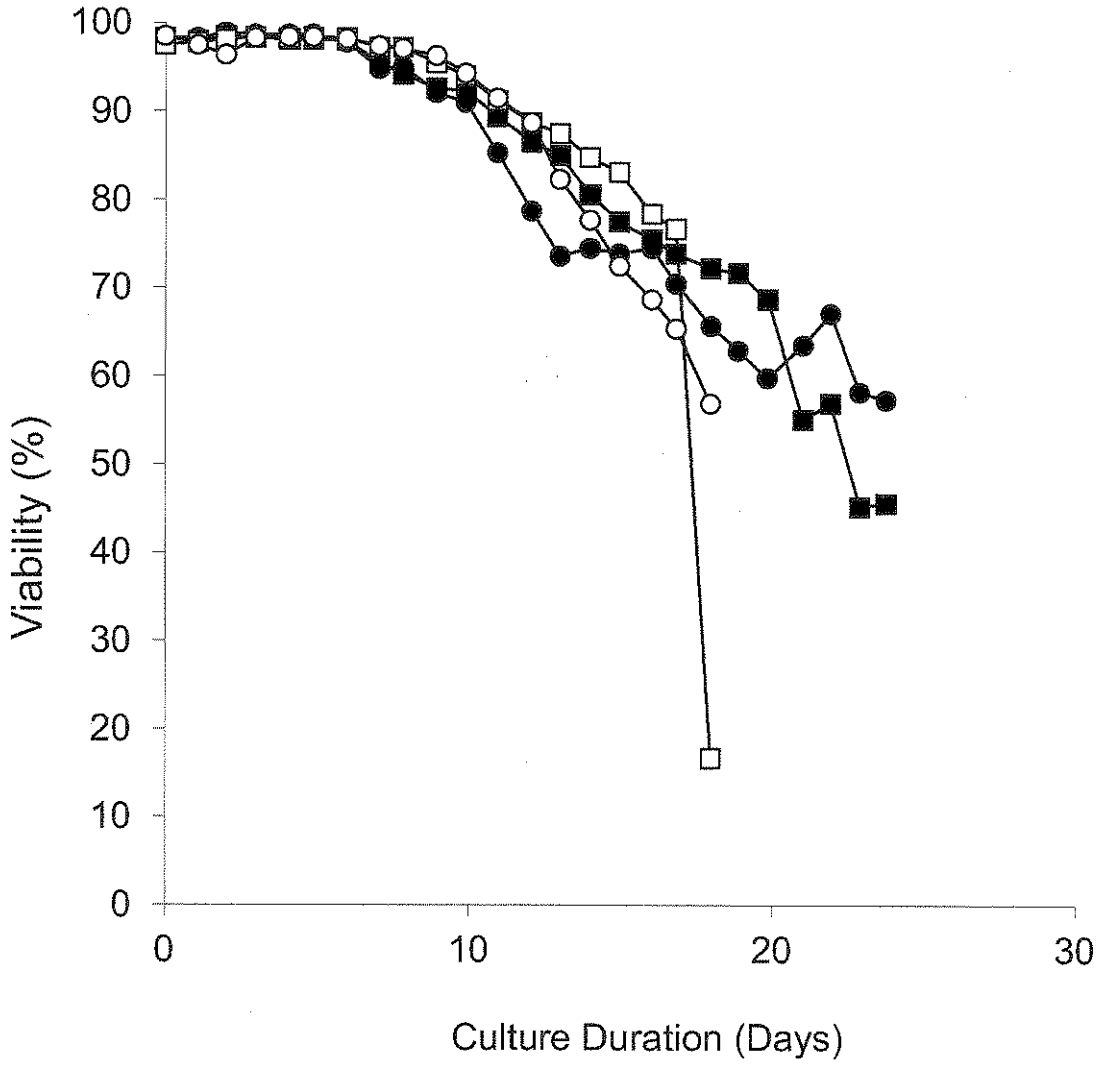

100
90
80
70
60
50
40
30
20
10
0
Viability (%)
0
10
20
30
Culture Duration (Days)

Figure 1B

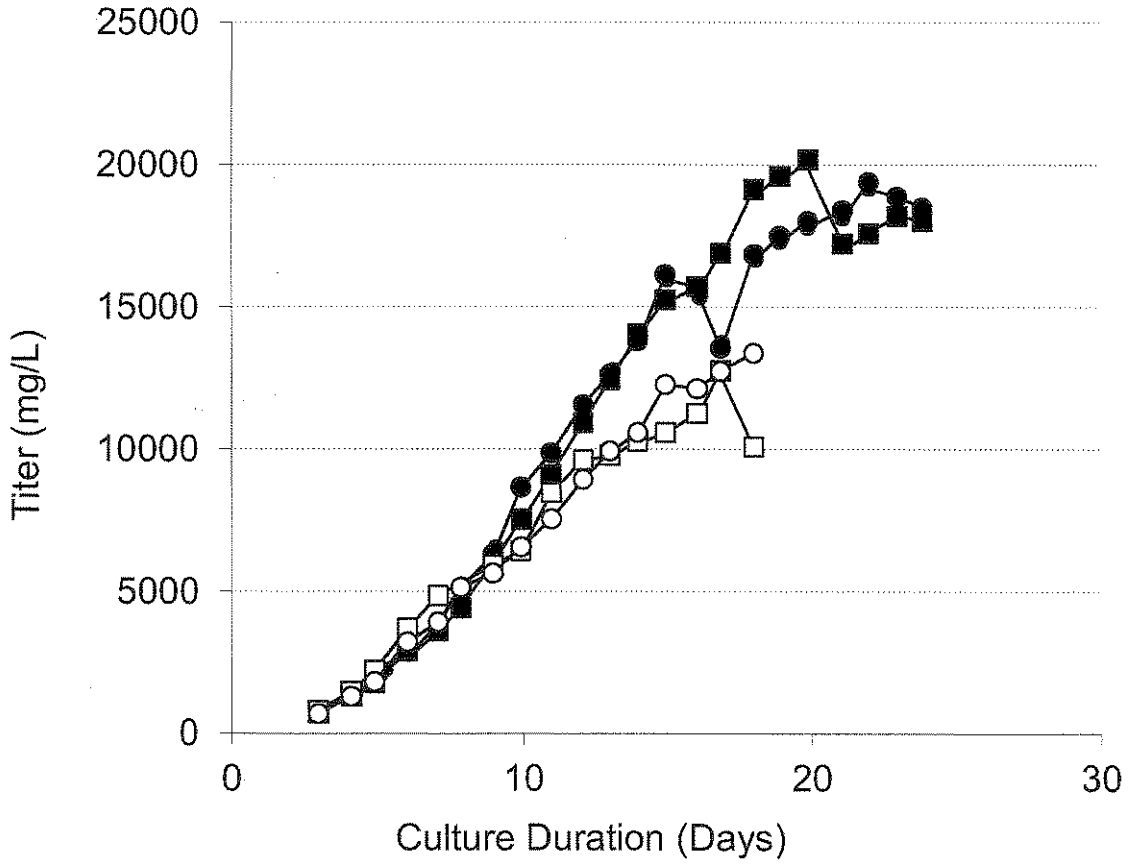

25000
20000
15000
10000
5000
0
Titer (mg/L)
0
10
20
30
Culture Duration (Days)

Figure 1C

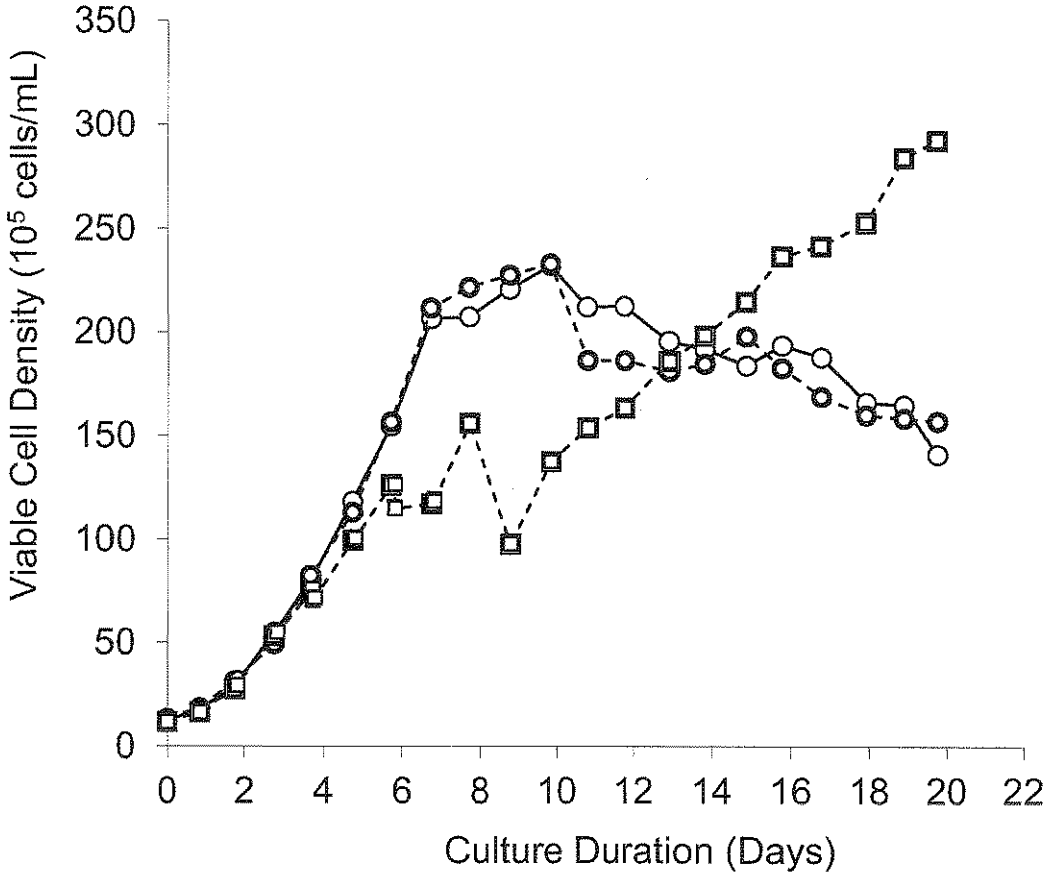

Viable Cell Density (10^5 cells/mL)
350
300
250
200
150
100
50
0
0
2
4
6
8
10
12
14
16
18
20
22
Culture Duration (Days)

Figure 2A

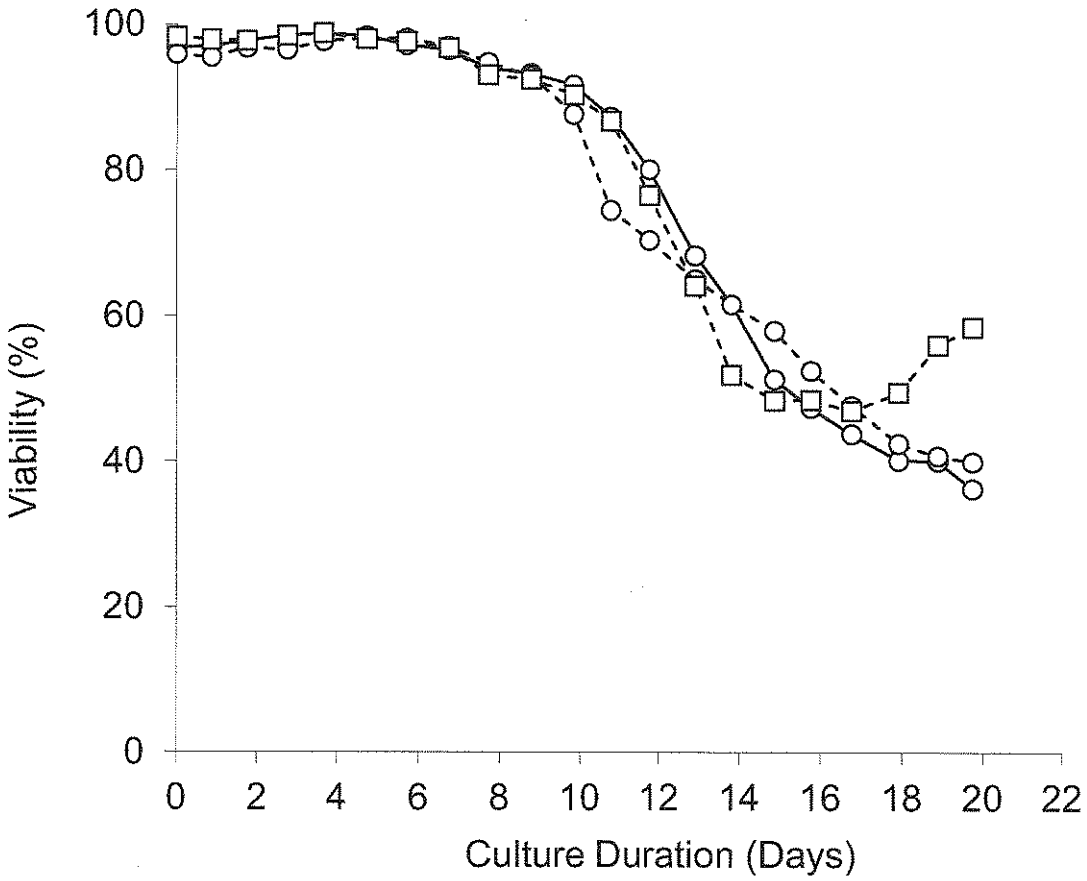

100
80
60
40
20
0
Viability (%)
0
2
4
6
8
10
12
14
16
18
20
22
Culture Duration (Days)

Figure 2B

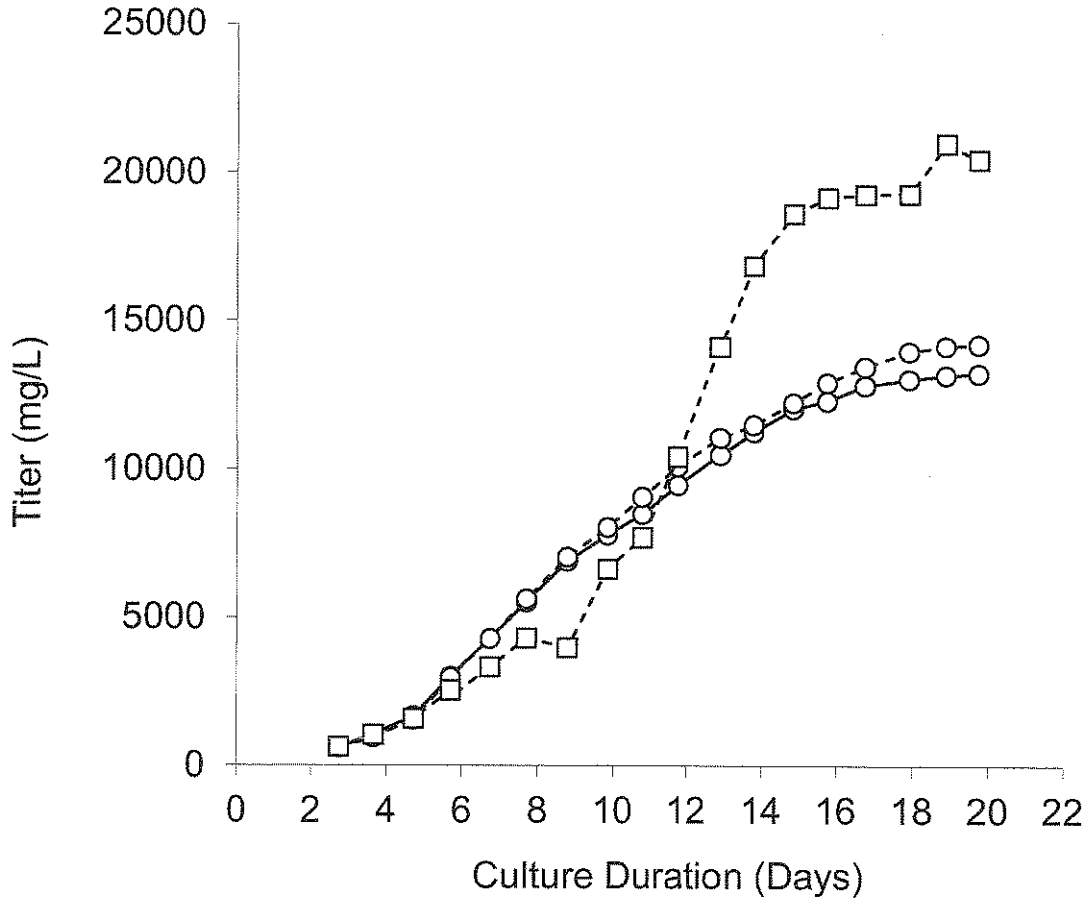

25000
20000
15000
10000
5000
0
Titer (mg/L)
0 2 4 6 8 10 12 14 16 18 20 22
Culture Duration (Days)

Figure 2C

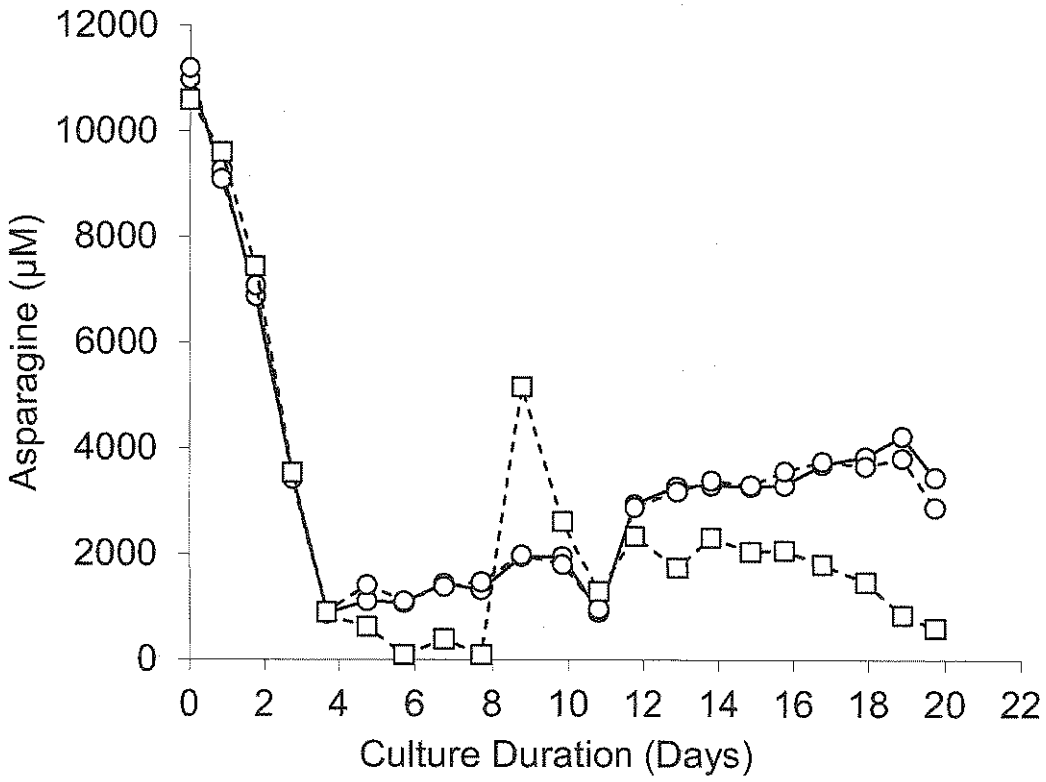

12000
10000
8000
6000
4000
2000
0
Asparagine (µM)
0
2
4
6
8
10
12
14
16
18
20
22
Culture Duration (Days)

Figure 2D

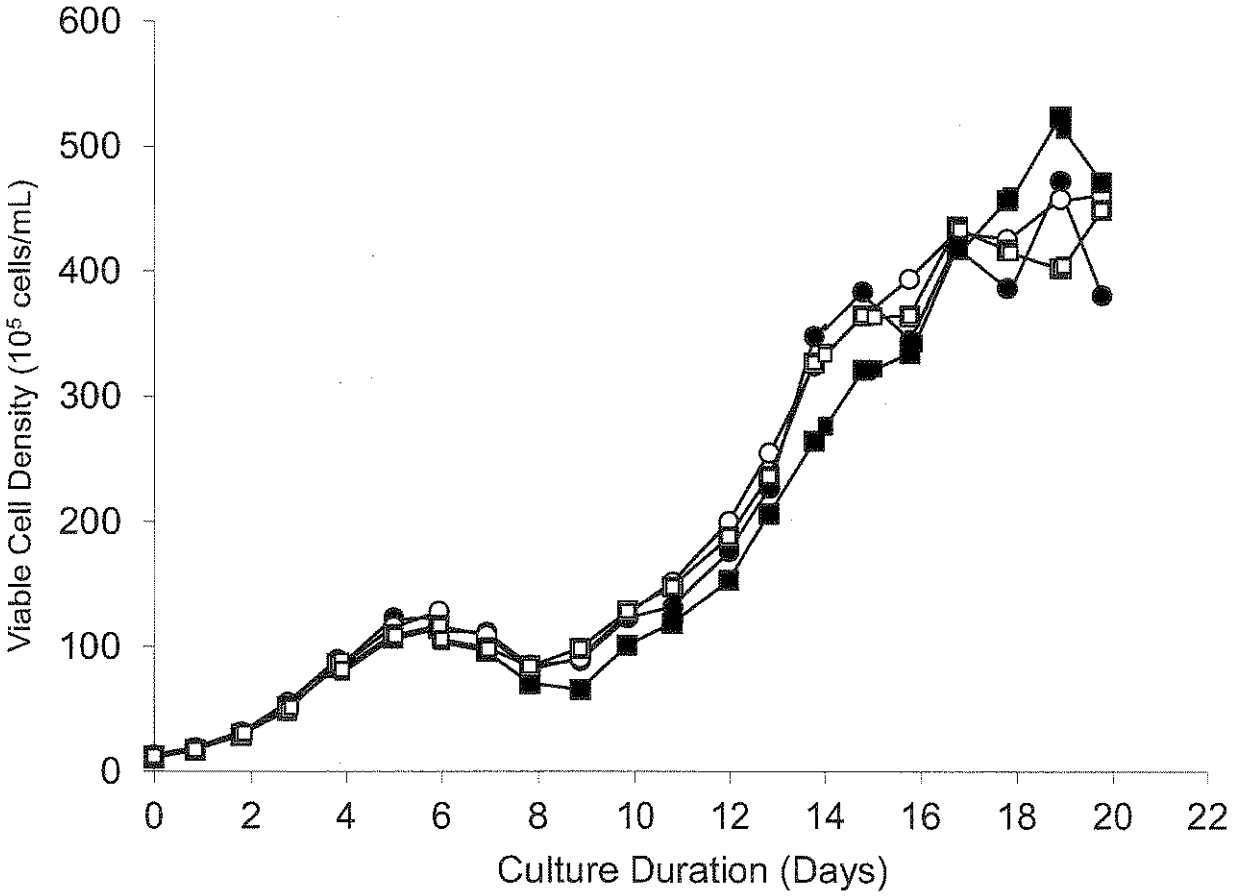

600
500
400
300
200
100
0
Viable Cell Density (10^5 cells/mL)
0
2
4
6
8
10
12
14
16
18
20
22
Culture Duration (Days)

Figure 3A

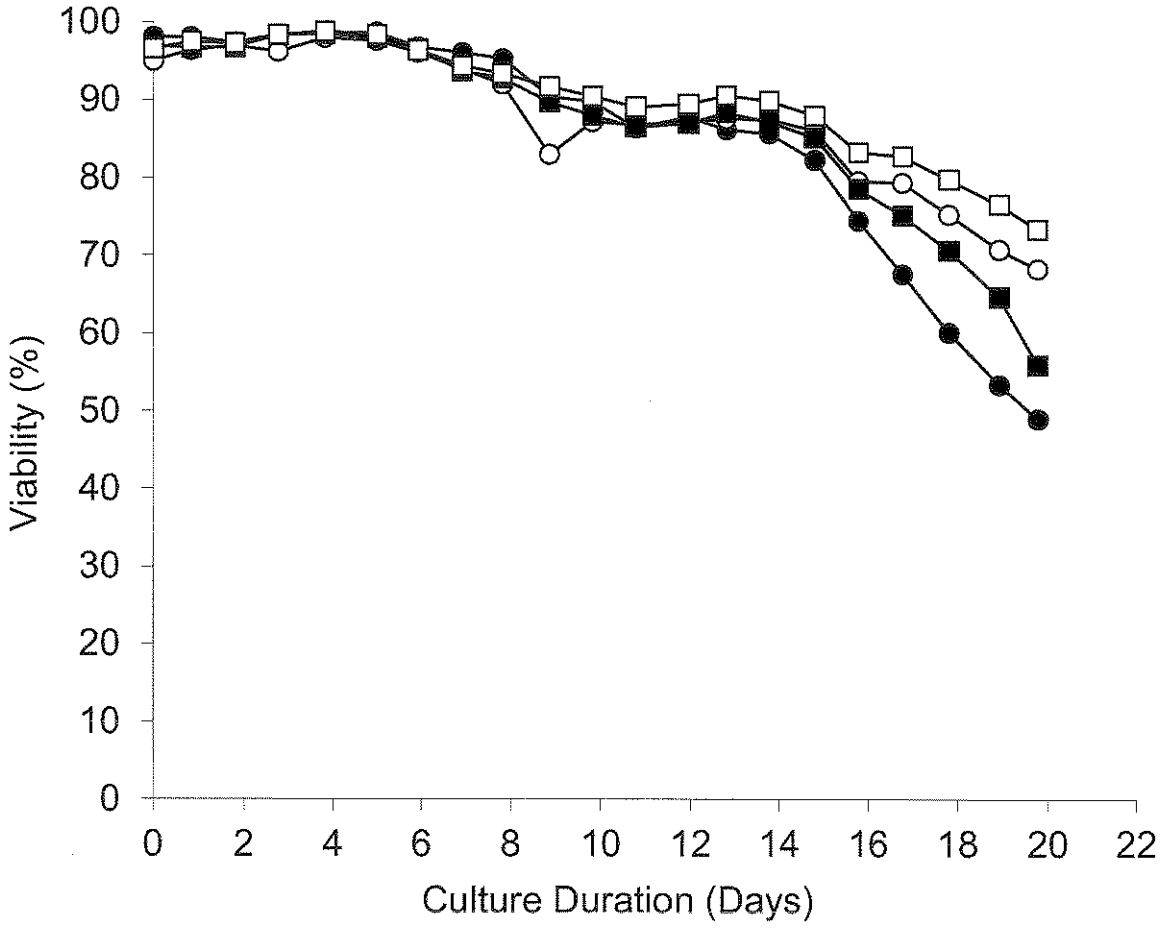

100
90
80
70
60
50
40
30
20
10
0
Viability (%)
0
2
4
6
8
10
12
14
16
18
20
22
Culture Duration (Days)

Figure 3B

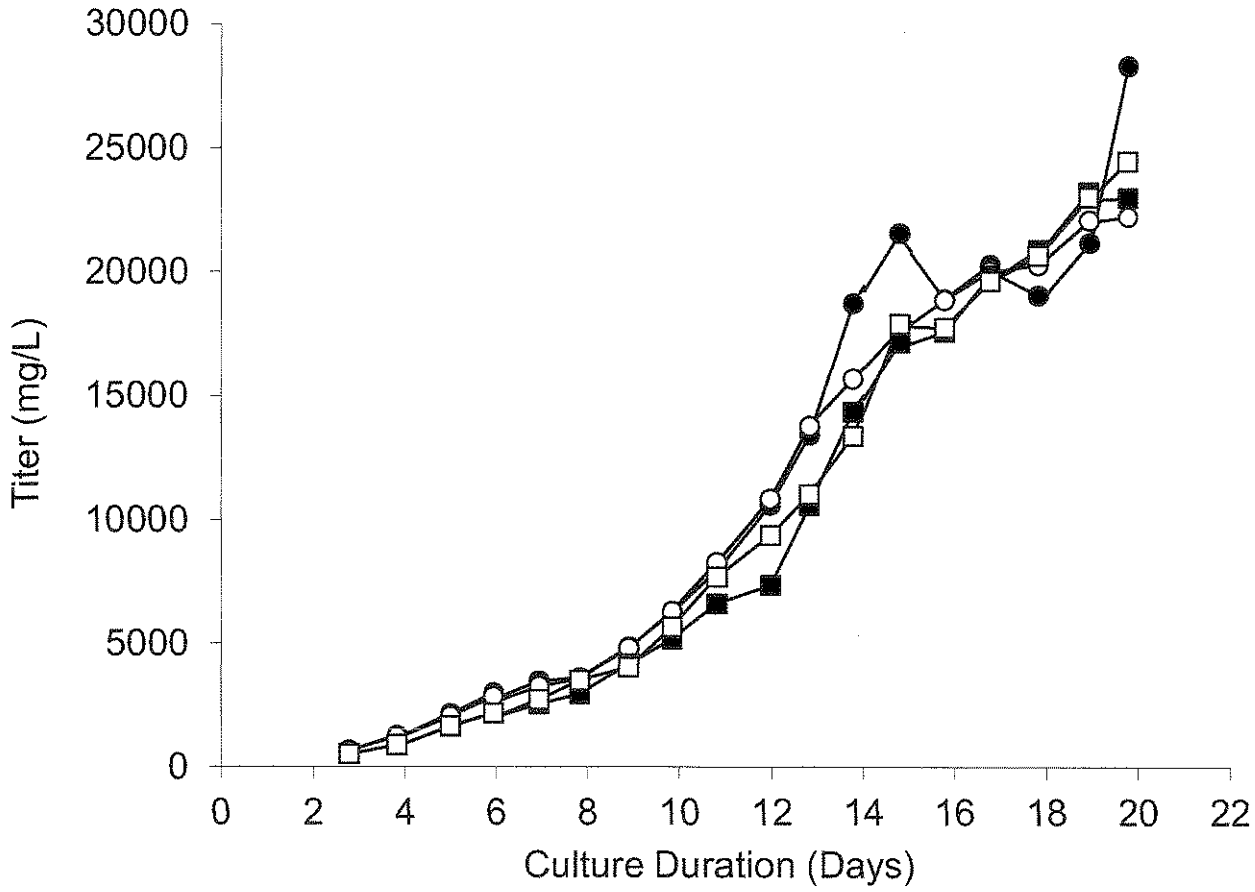

30000
25000
20000
15000
10000
5000
0
Titer (mg/L)
0
2
4
6
8
10
12
14
16
18
20
22
Culture Duration (Days)

Figure 3C

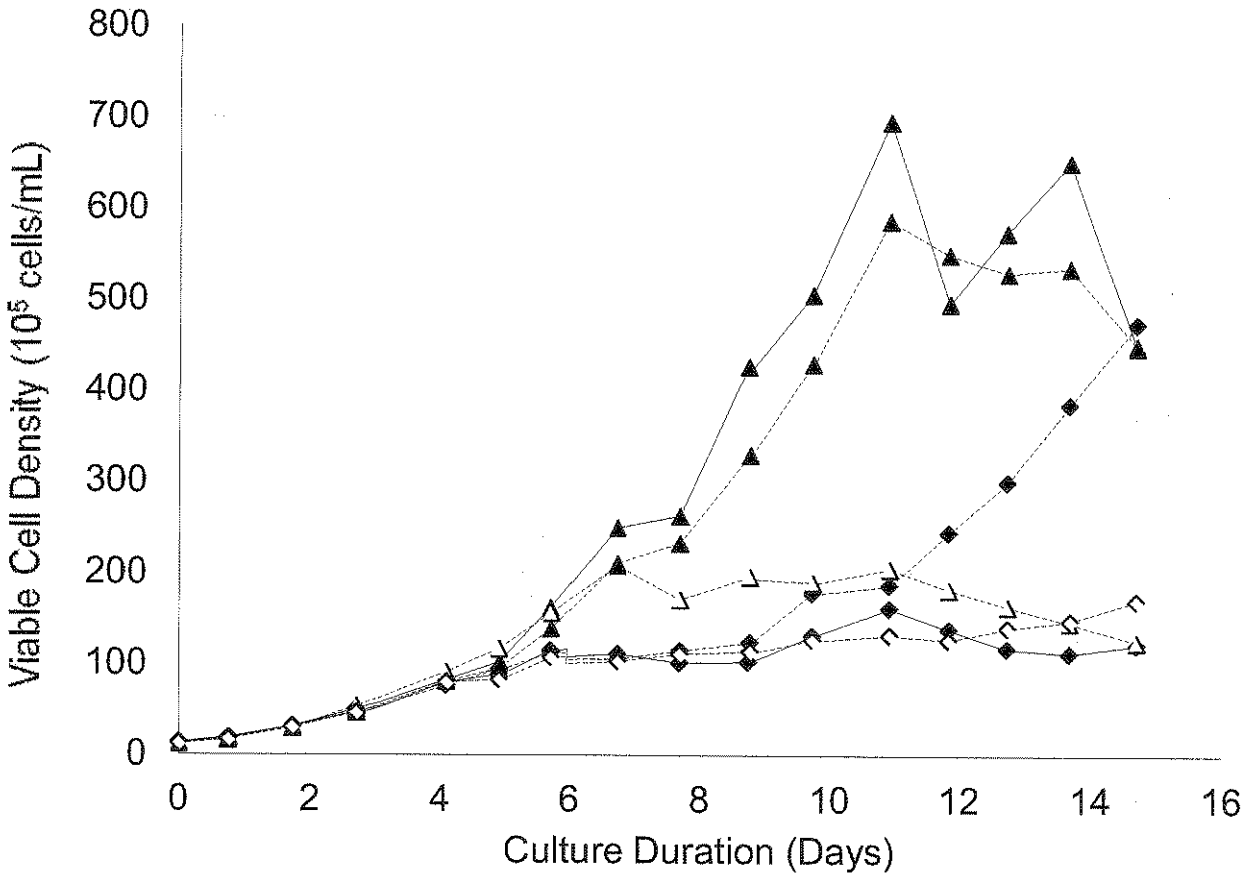

800
700
600
500
400
300
200
100
0
Viable Cell Density (10^5 cells/mL)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 4A

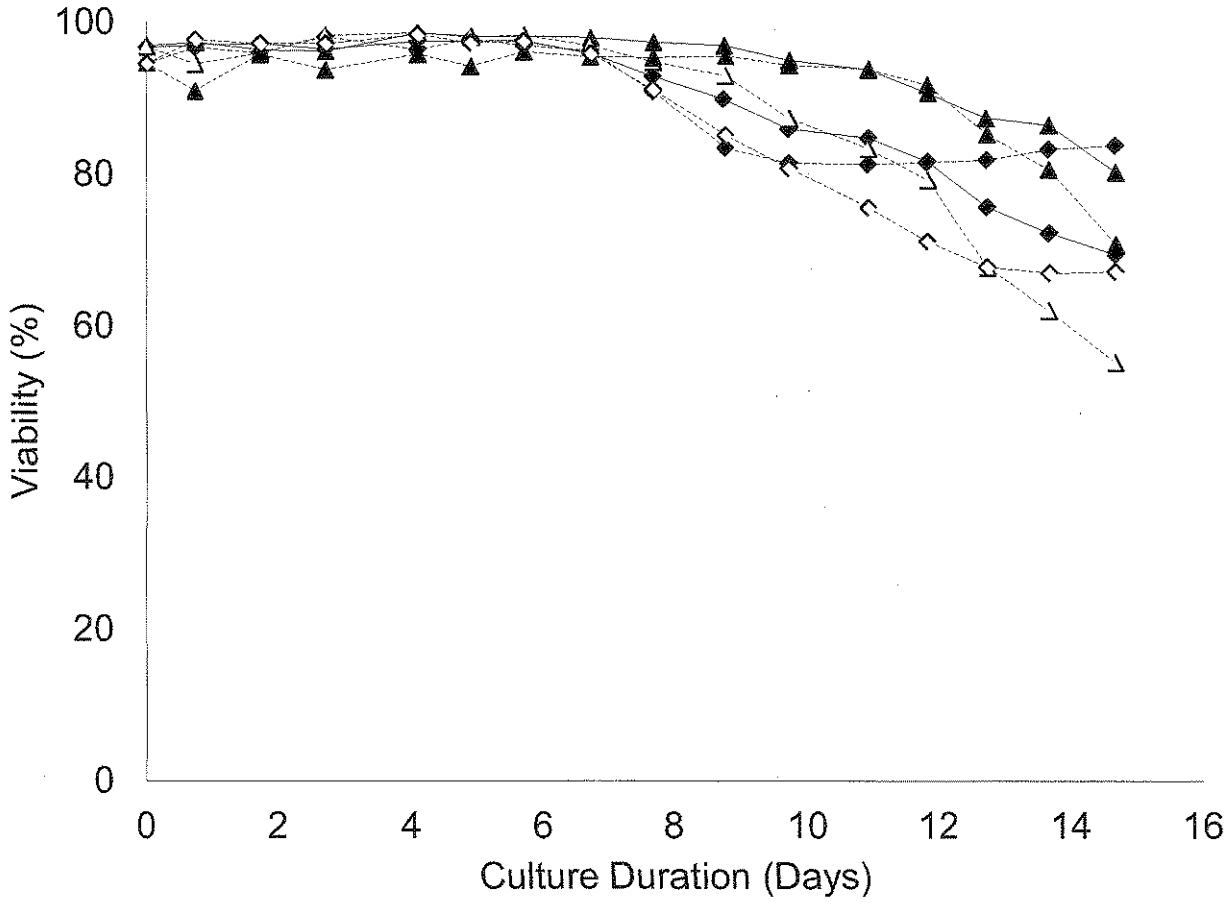

100
80
60
40
20
0
Viability (%)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 4B

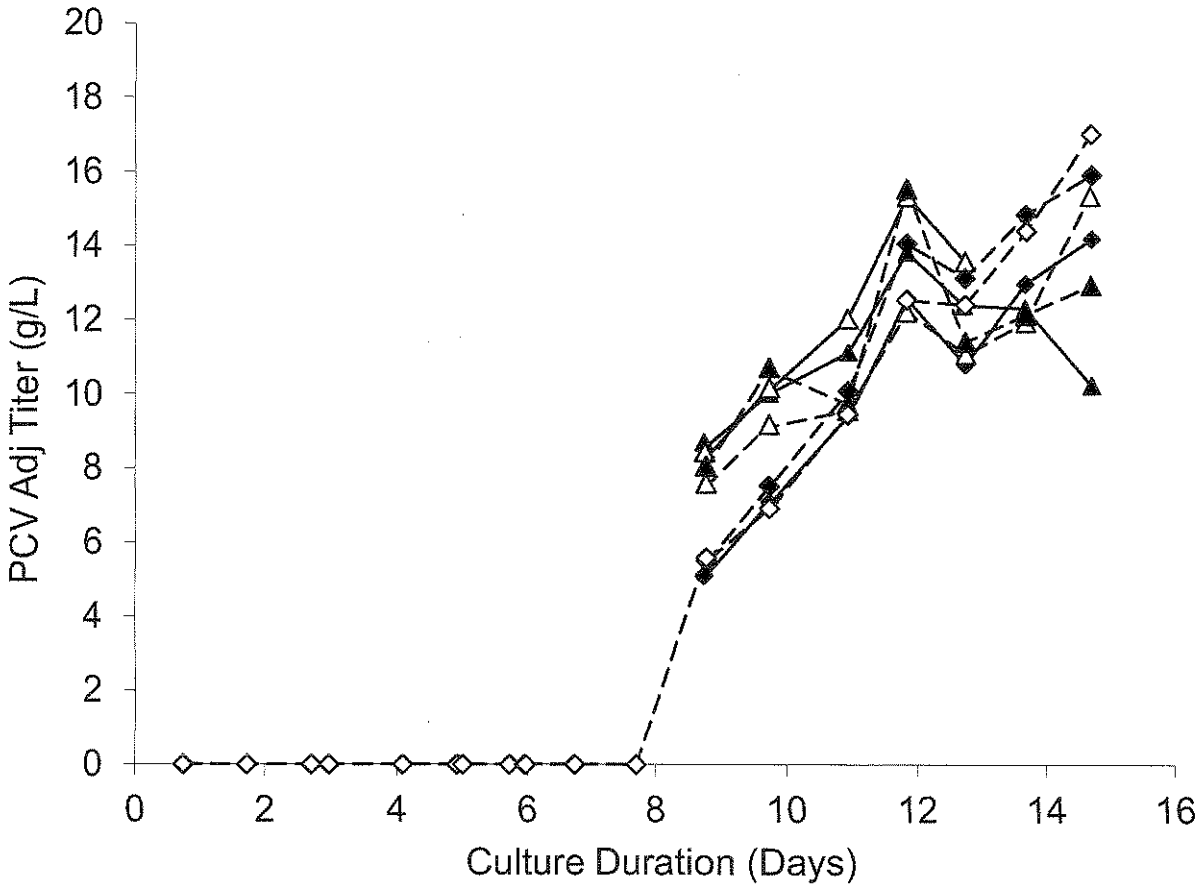

PCV Adj Titer (g/L)
20
18
16
14
12
10
8
6
4
2
0
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 4C

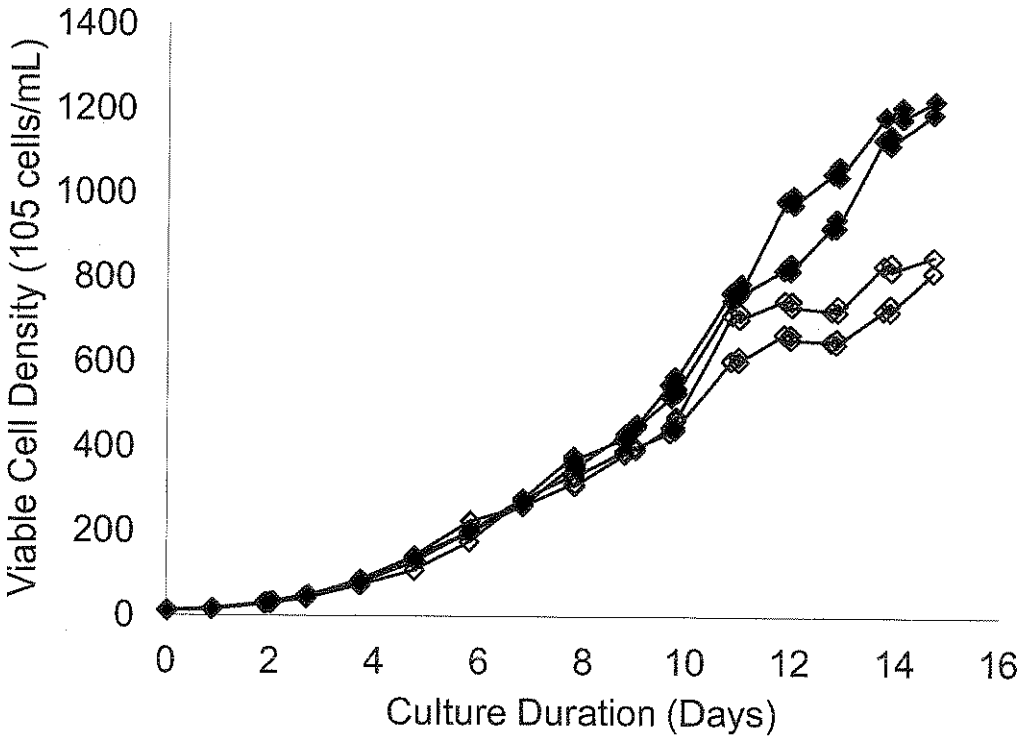

Viable Cell Density (105 cells/mL)
1400
1200
1000
800
600
400
200
0
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 5A

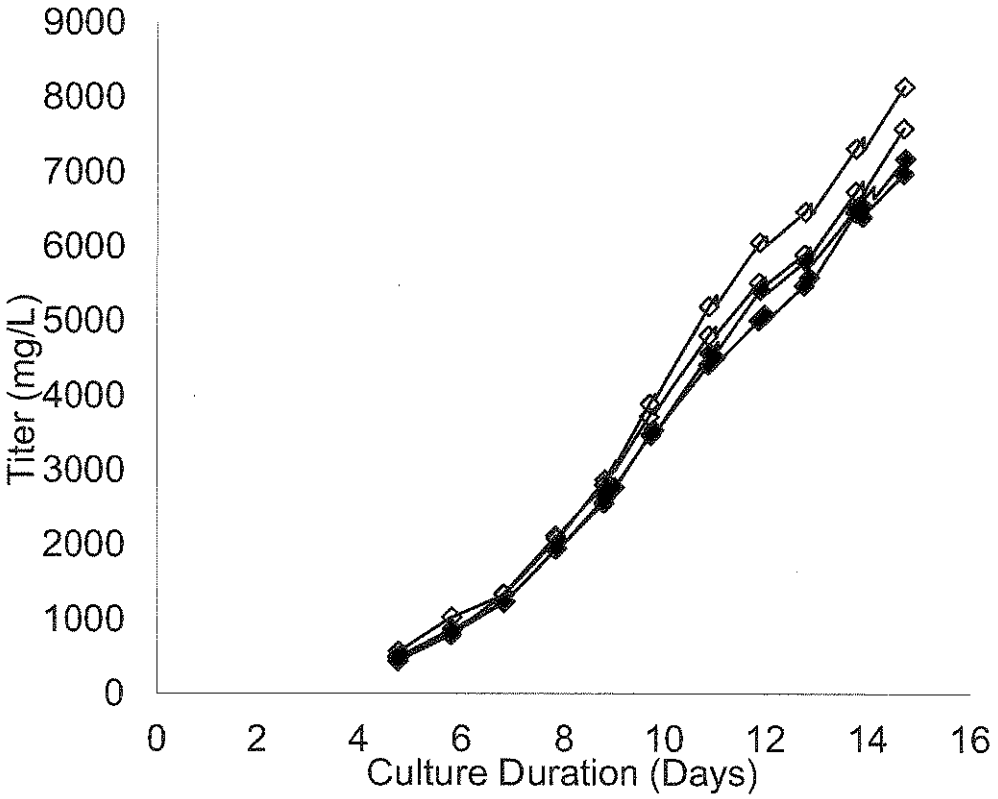

9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Titer (mg/L)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 5B

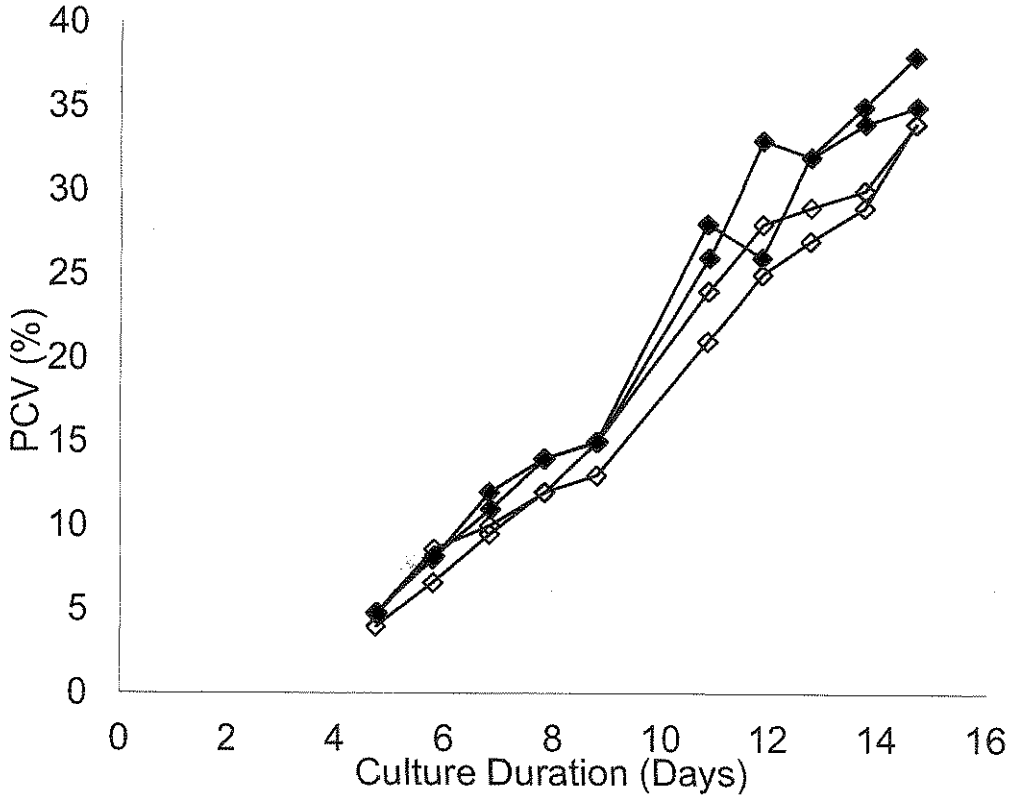

40
35
30
25
20
15
10
5
0
PCV (%)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 5C

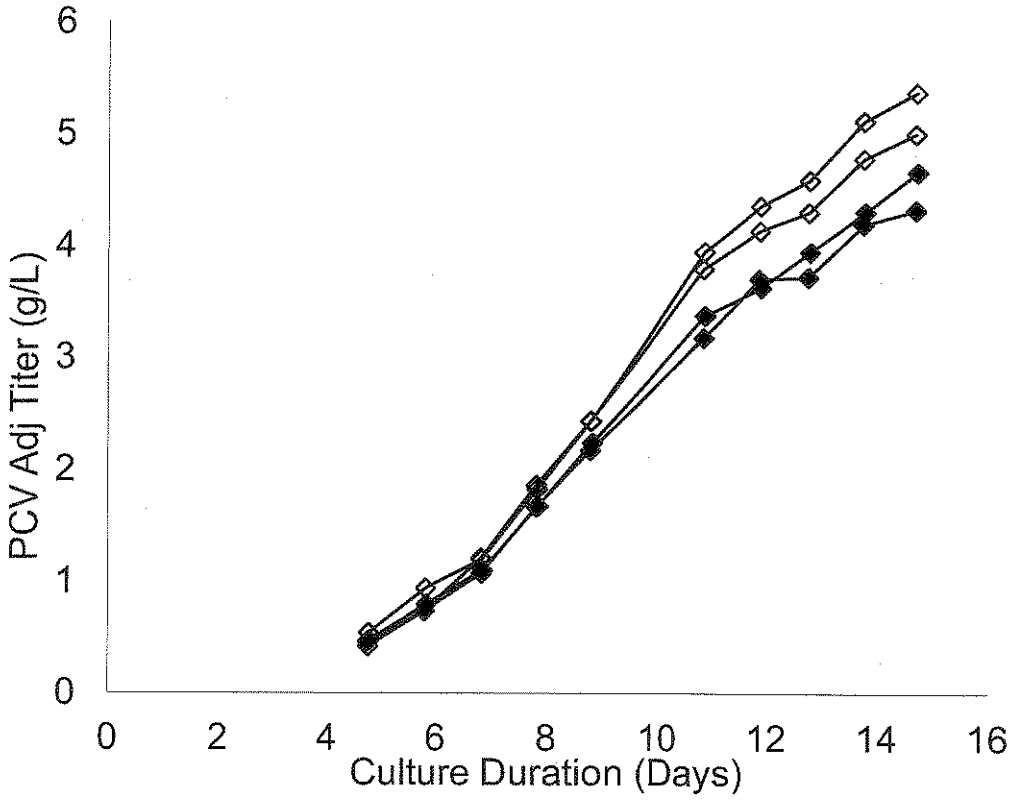

PCV Adj Titer (g/L)
0
1
2
3
4
5
6
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 5D

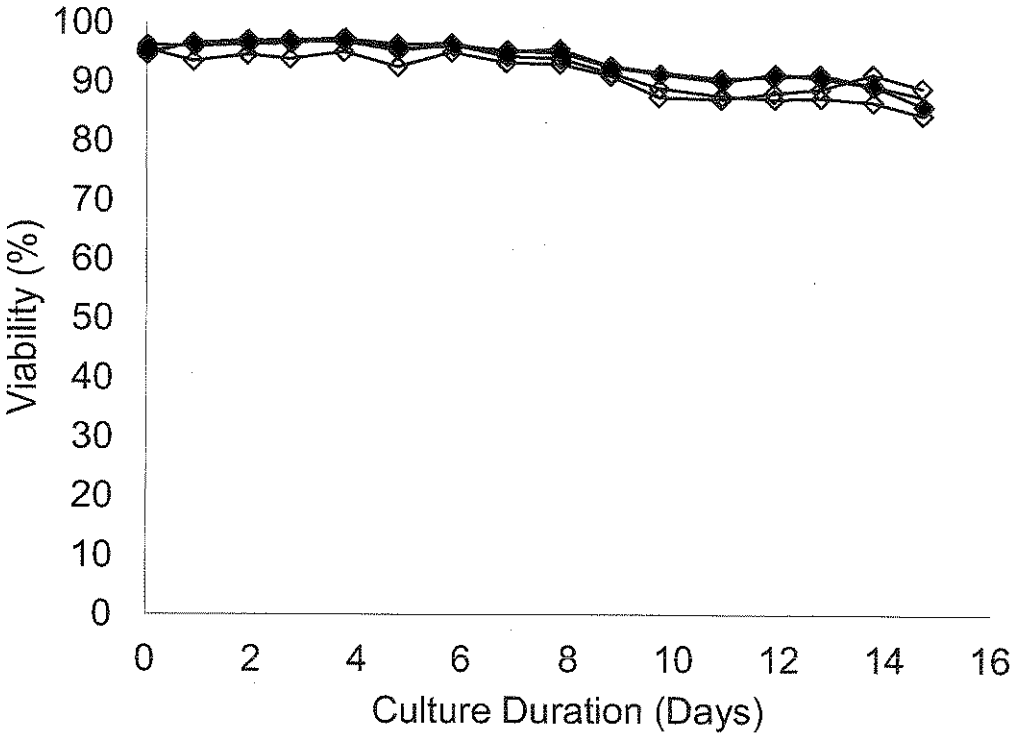

100
90
80
70
60
50
40
30
20
10
0
Viability (%)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 5E

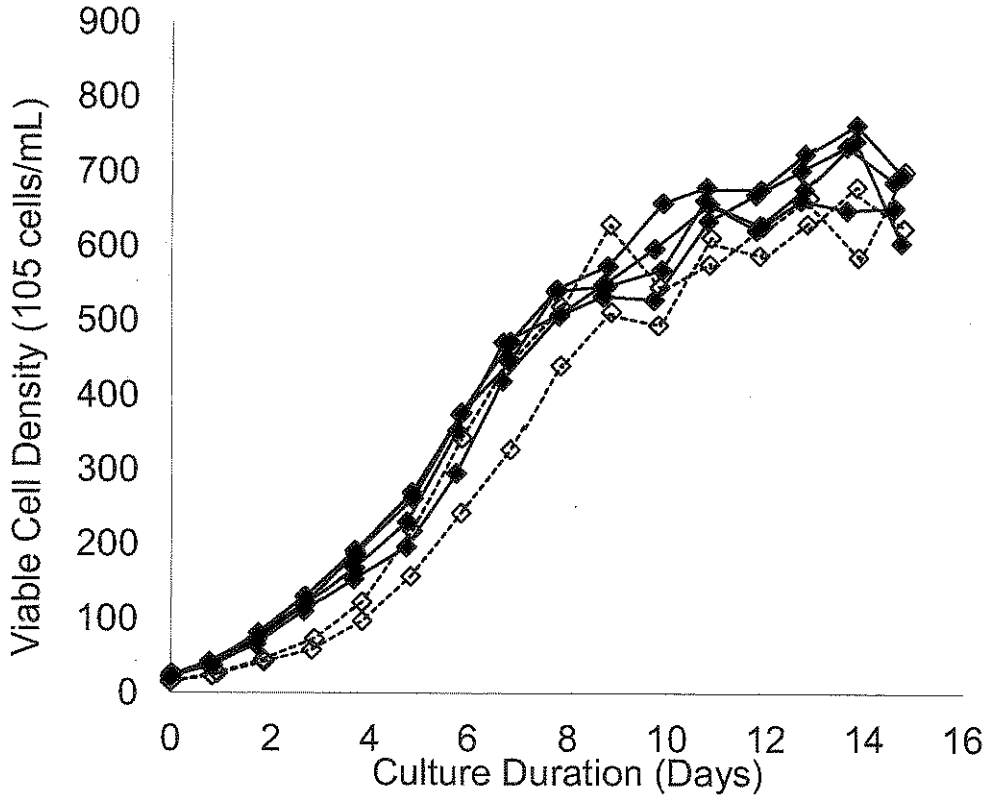

900
800
700
600
500
400
300
200
100
0
Viable Cell Density (105 cells/mL)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 6A

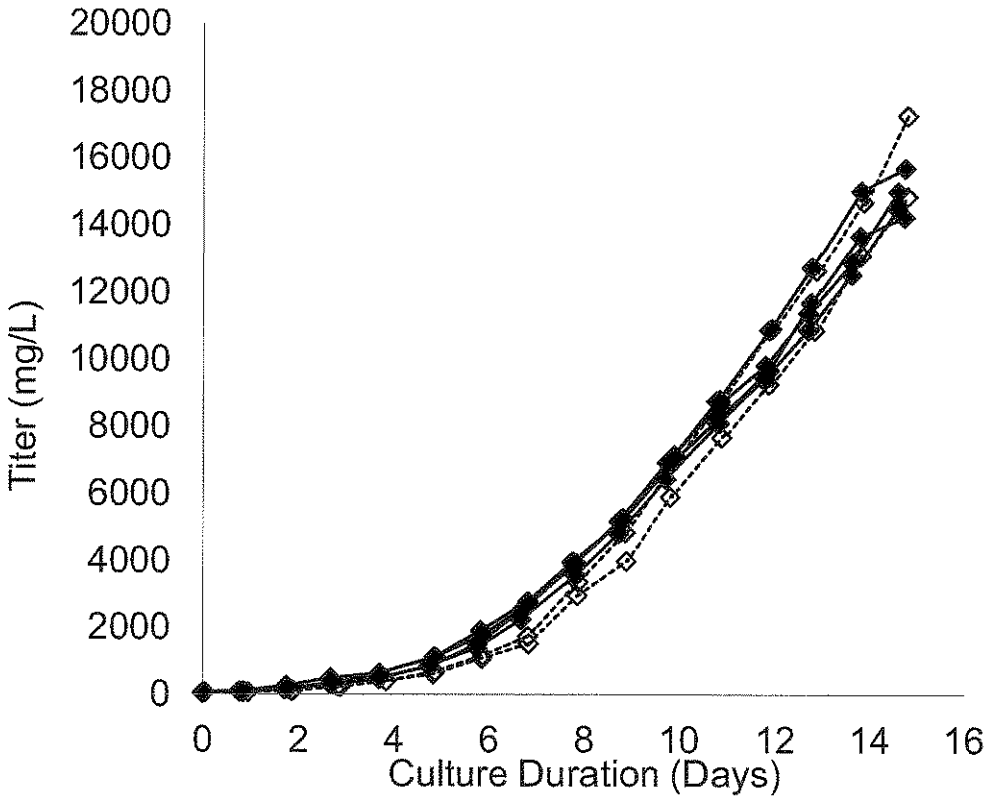

20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
Titer (mg/L)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 6B

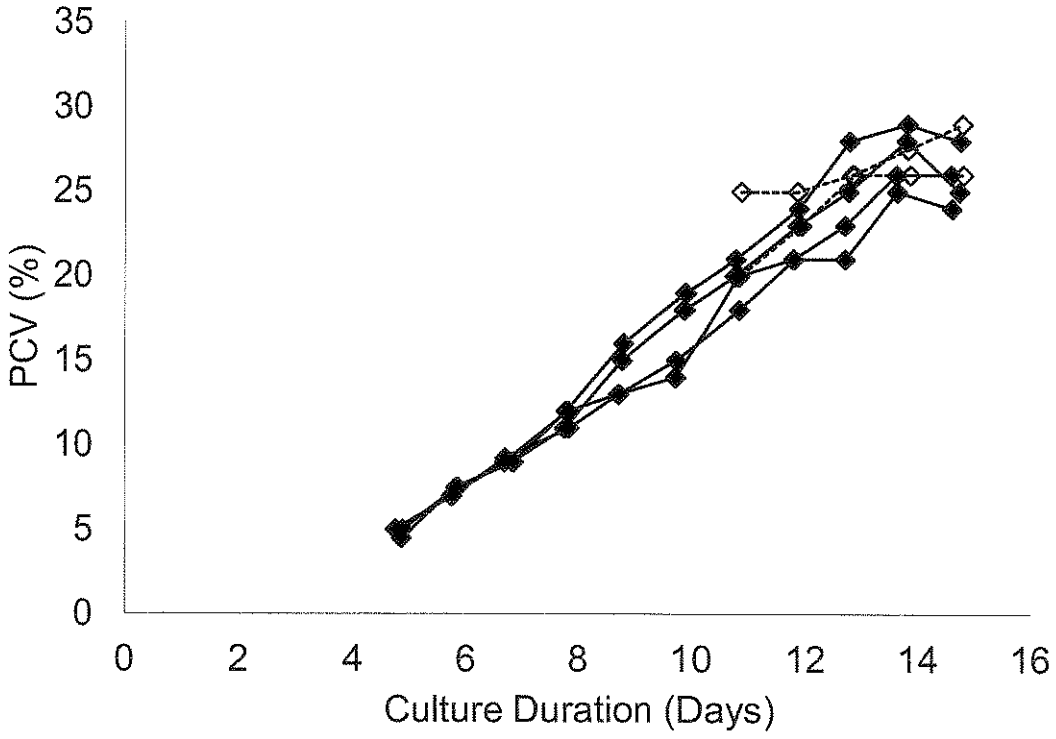


Figure 6C

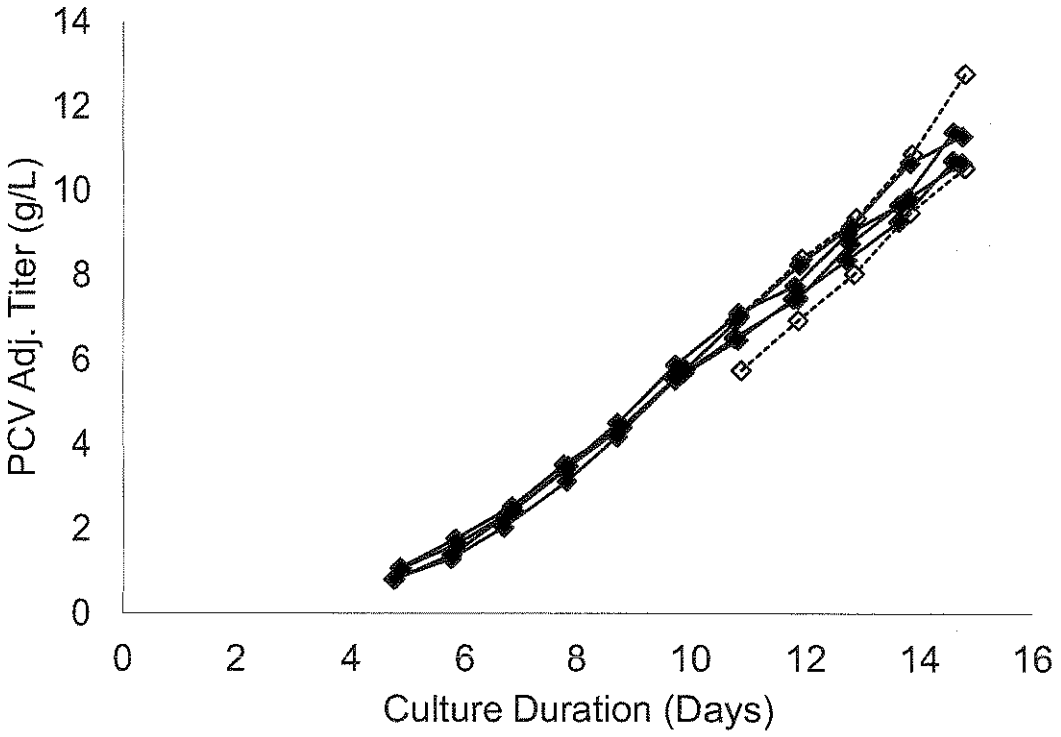

PCV Adj. Titer (g/L)
0
2
4
6
8
10
12
14
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 6D

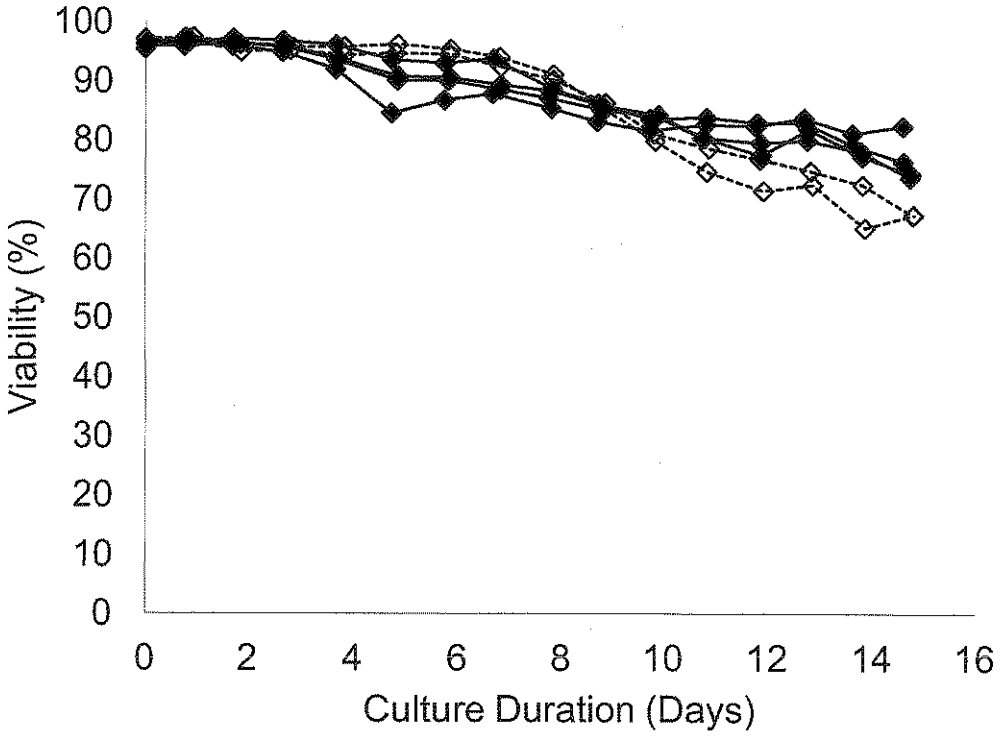

100
90
80
70
60
50
40
30
20
10
0
Viability (%)
0
2
4
6
8
10
12
14
16
Culture Duration (Days)

Figure 6E