FIGURE 1

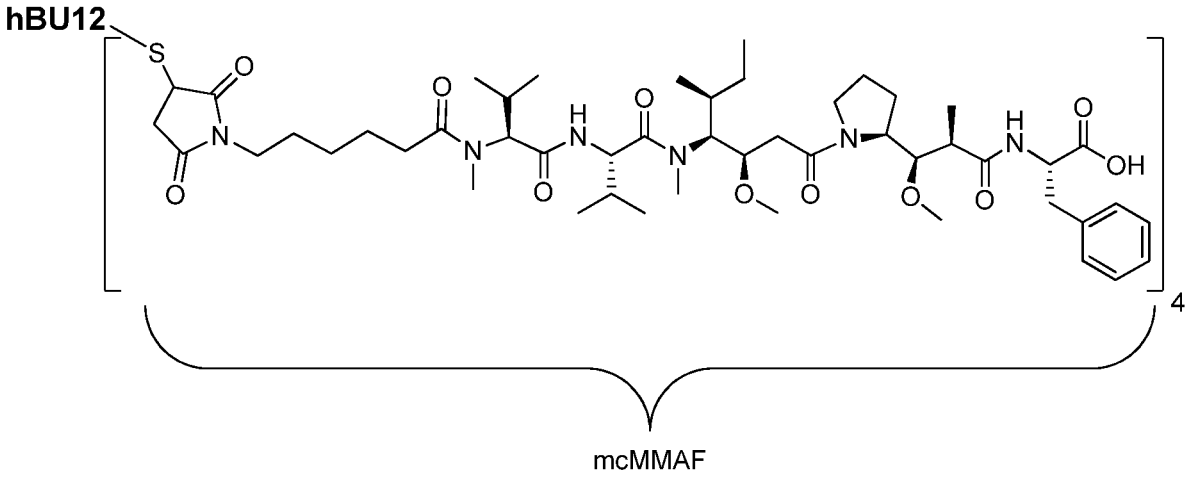


FIGURE 2A

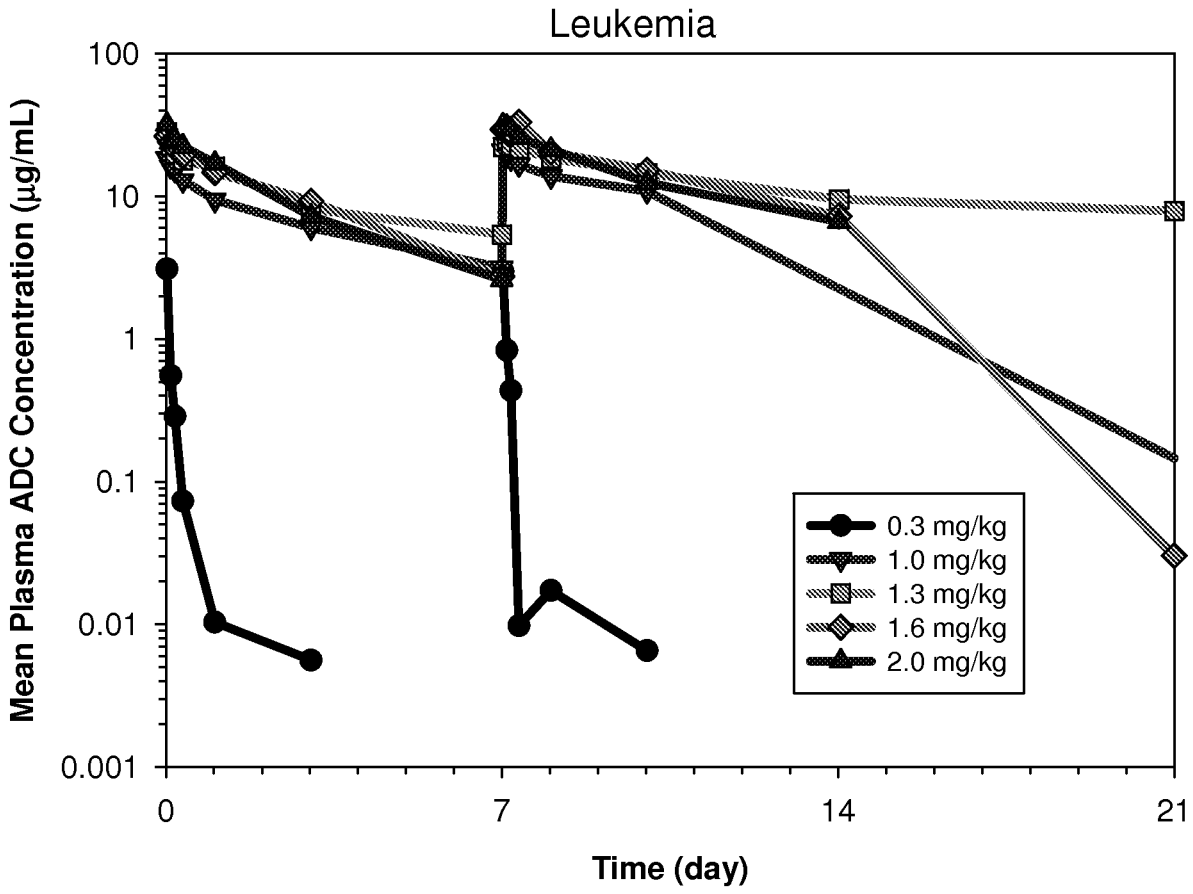

Leukemia
Mean Plasma ADC Concentration (µg/mL)
100
10
1
0.1
0.01
0.001
0
7
14
21
Time (day)
0.3 mg/kg
1.0 mg/kg
1.3 mg/kg
1.6 mg/kg
2.0 mg/kg

FIGURE 2B

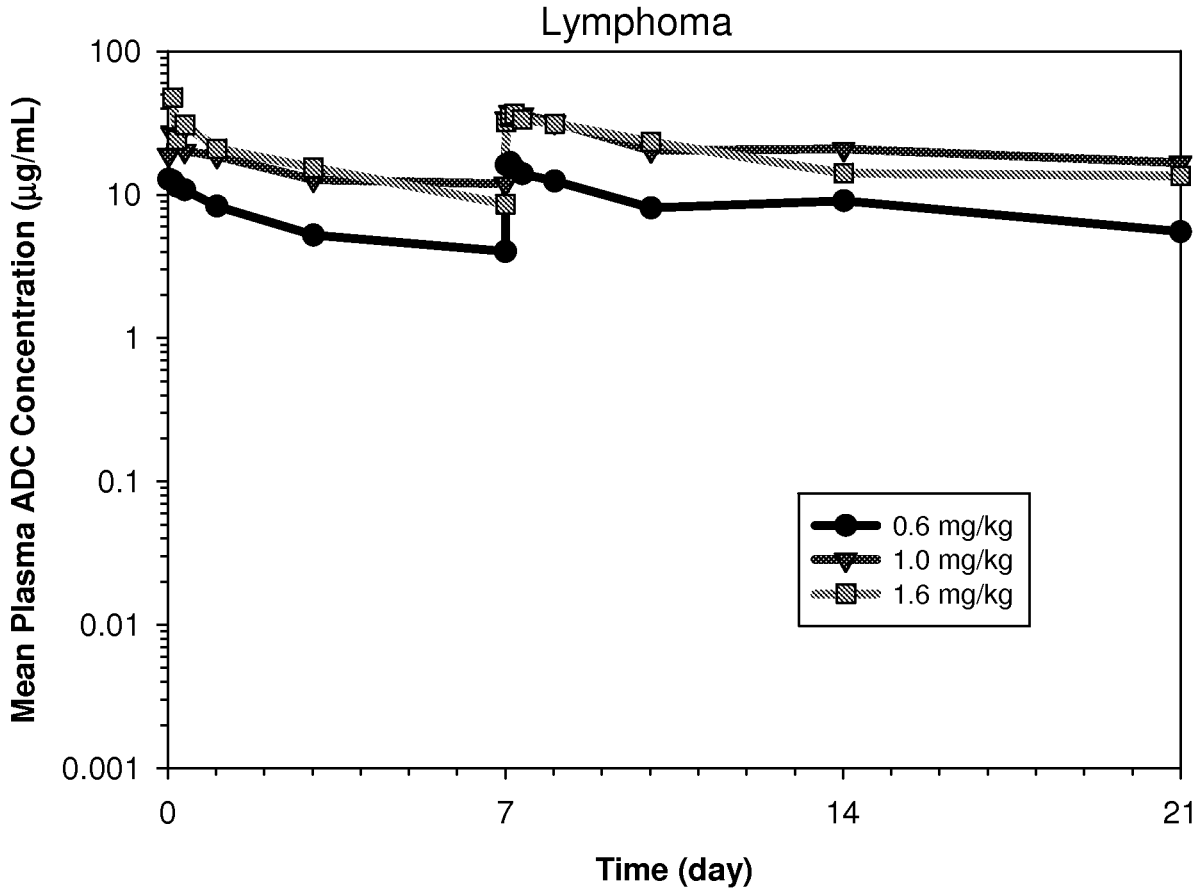

Lymphoma
Mean Plasma ADC Concentration (µg/mL)
100
10
1
0.1
0.01
0.001
0
7
14
21
Time (day)
0.6 mg/kg
1.0 mg/kg
1.6 mg/kg

FIGURE 3A

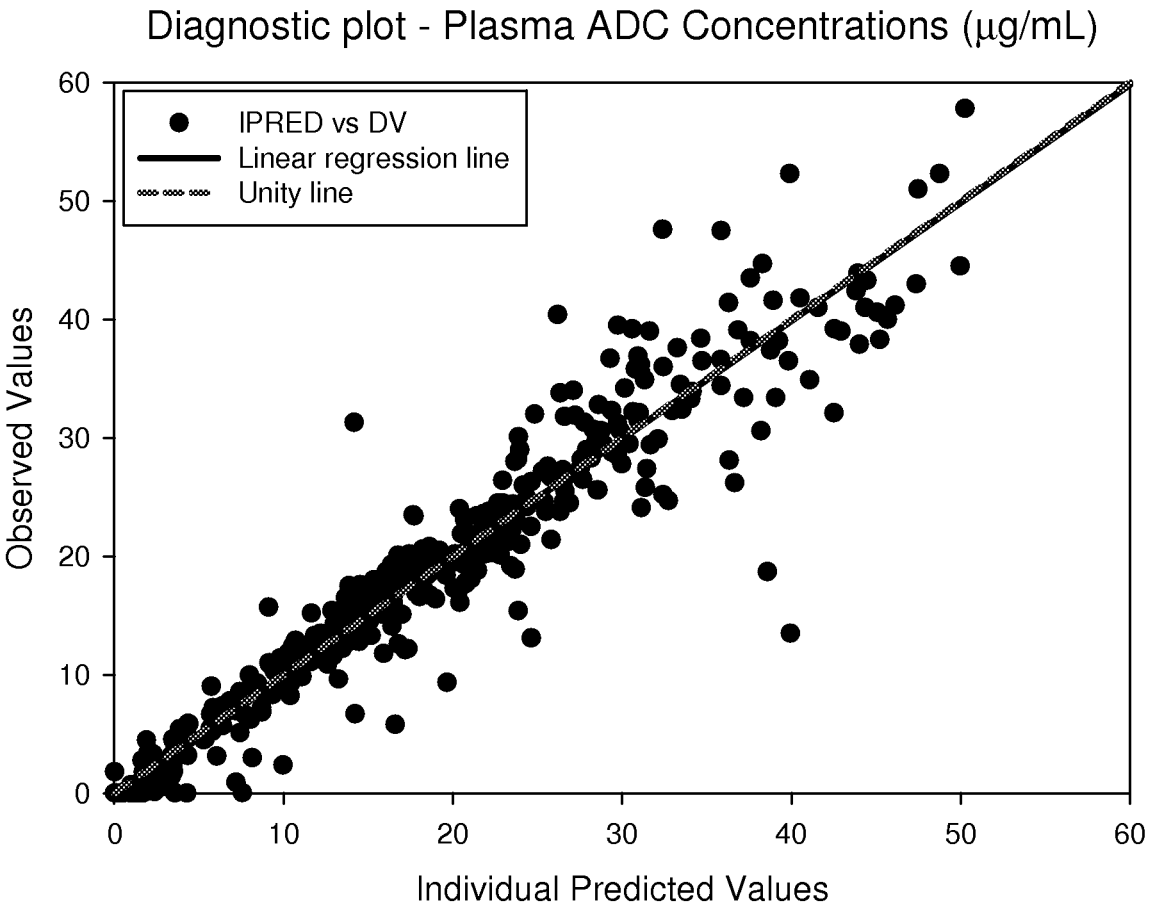

Diagnostic plot - Plasma ADC Concentrations (µg/mL)
IPRED vs DV
Linear regression line
Unity line
Observed Values
Individual Predicted Values
0
10
20
30
40
50
60

FIGURE 3B

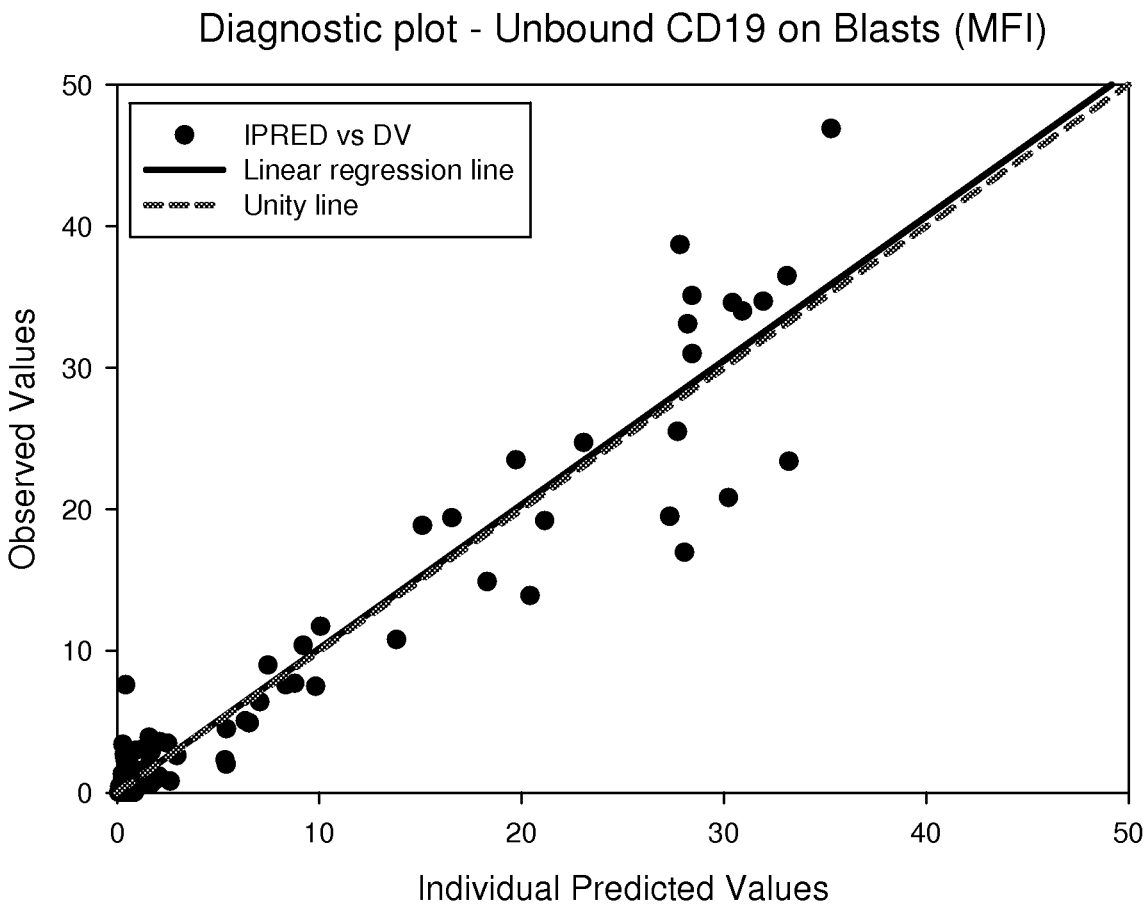

Diagnostic plot - Unbound CD19 on Blasts (MFI)
IPRED vs DV
Linear regression line
Unity line
Observed Values
Individual Predicted Values
0
10
20
30
40
50

FIGURE 3C

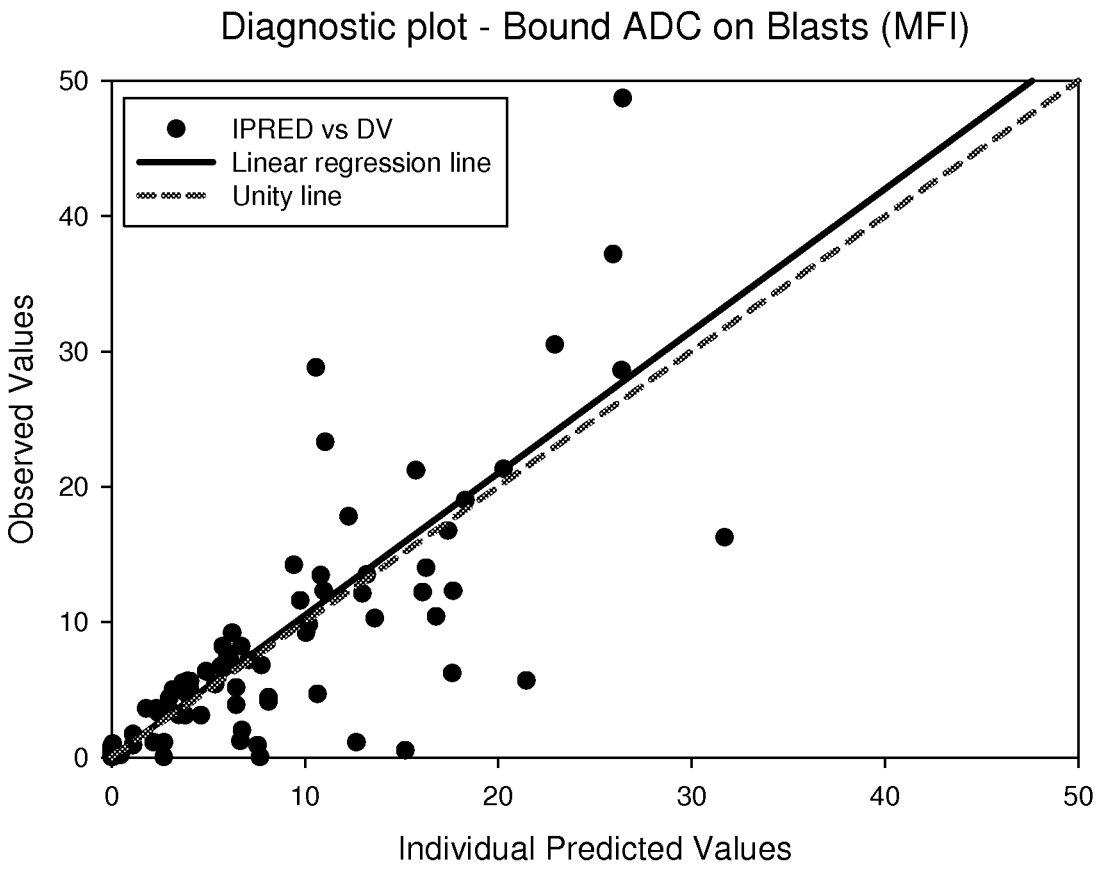

Diagnostic plot - Bound ADC on Blasts (MFI)
IPRED vs DV
Linear regression line
Unity line
Observed Values
Individual Predicted Values
0
10
20
30
40
50

FIGURE 3D

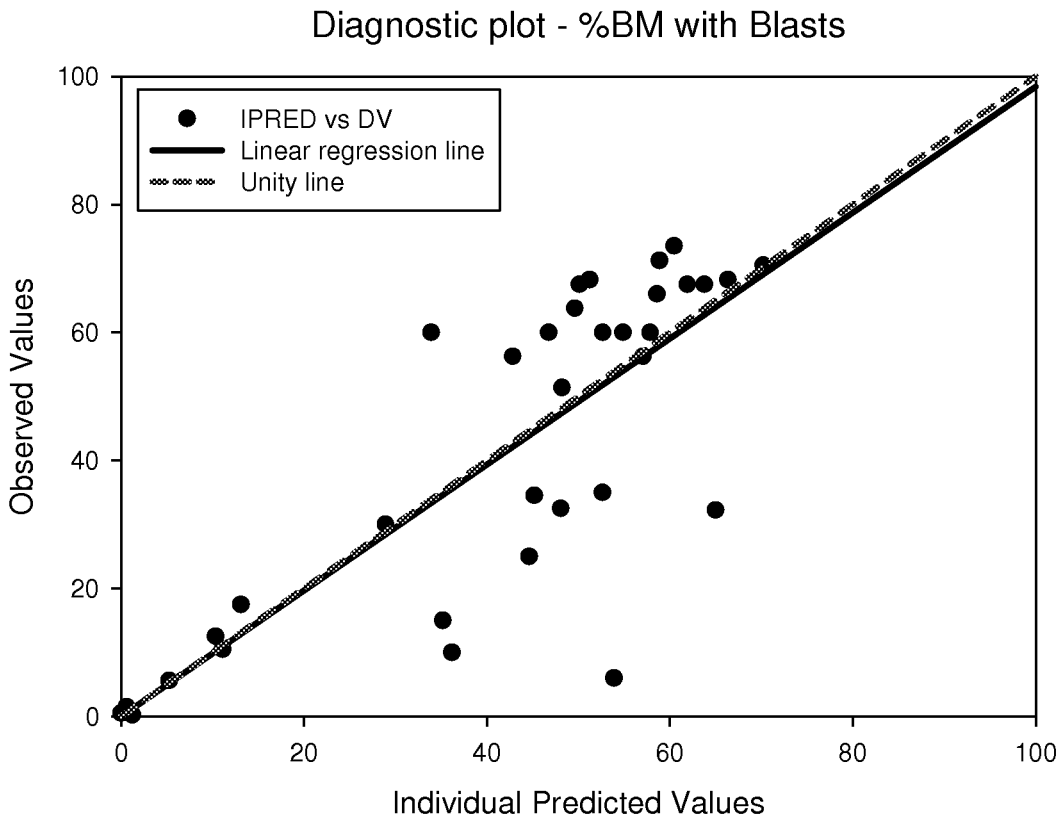

Diagnostic plot - %BM with Blasts
IPRED vs DV
Linear regression line
Unity line
Observed Values
Individual Predicted Values
0
20
40
60
80
100

FIGURE 4A

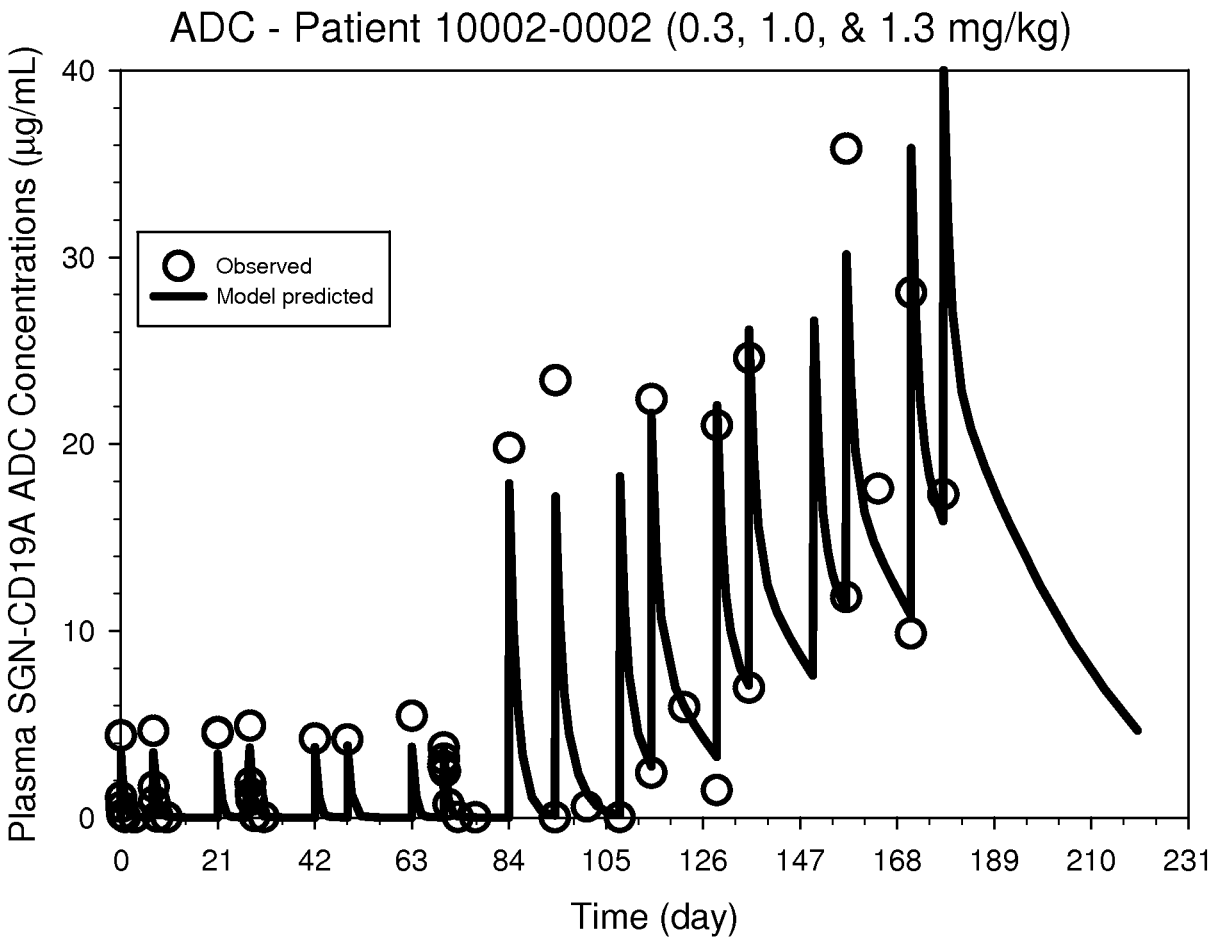

ADC - Patient 10002-0002 (0.3, 1.0, & 1.3 mg/kg)
Plasma SGN-CD19A ADC Concentrations (µg/mL)
40
30
20
10
0
Observed
Model predicted
0
21
42
63
84
105
126
147
168
189
210
231
Time (day)

FIGURE 4B

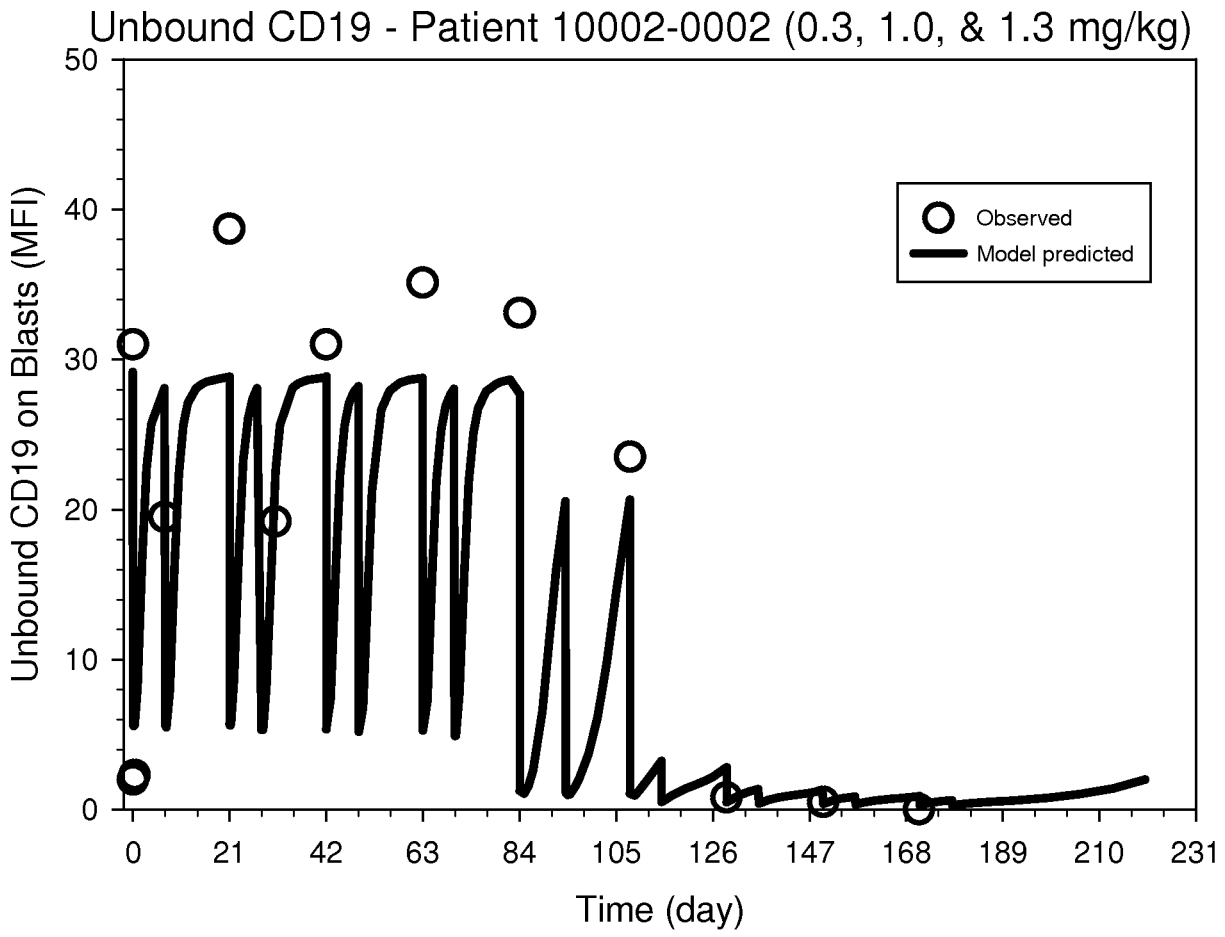

Unbound CD19 - Patient 10002-0002 (0.3, 1.0, & 1.3 mg/kg)
Unbound CD19 on Blasts (MFI)
50
40
30
20
10
0
0
21
42
63
84
105
126
147
168
189
210
231
Time (day)
Observed
Model predicted

FIGURE 4C

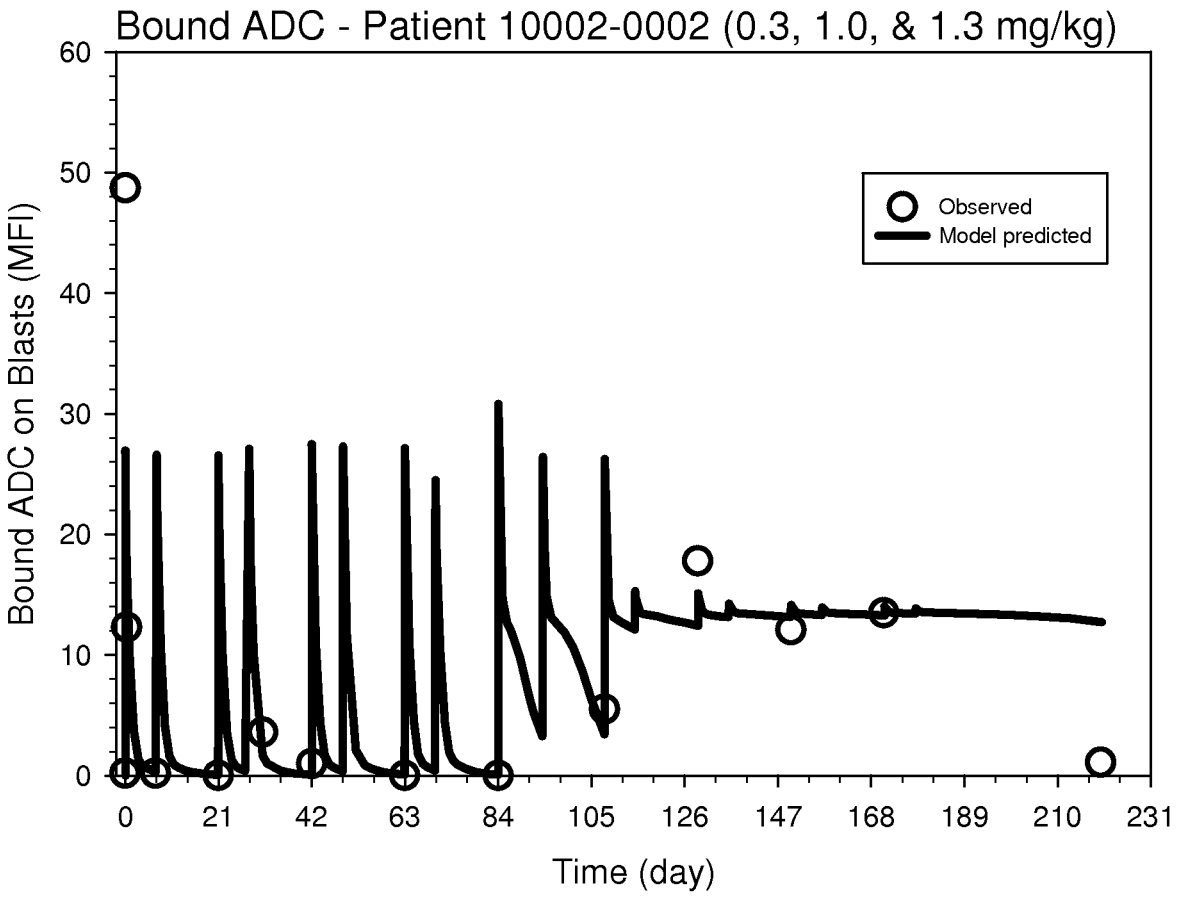

Bound ADC - Patient 10002-0002 (0.3, 1.0, & 1.3 mg/kg)
Bound ADC on Blasts (MFI)
Time (day)
Observed
Model predicted
0
10
20
30
40
50
60
0
21
42
63
84
105
126
147
168
189
210
231

FIGURE 4D

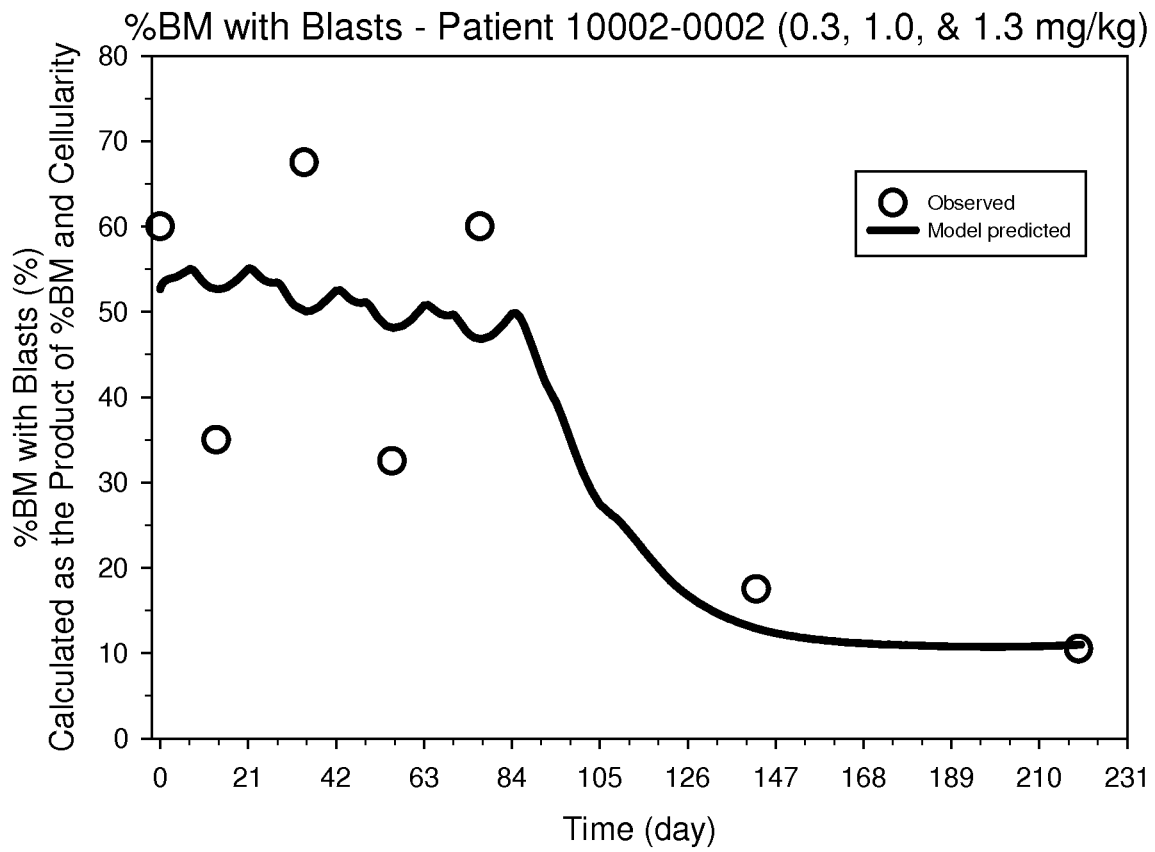

%BM with Blasts - Patient 10002-0002 (0.3, 1.0, & 1.3 mg/kg)
%BM with Blasts (%)
Calculated as the Product of %BM and Cellularity
0
10
20
30
40
50
60
70
80
0
21
42
63
84
105
126
147
168
189
210
231
Time (day)
Observed
Model predicted

FIGURE 5A

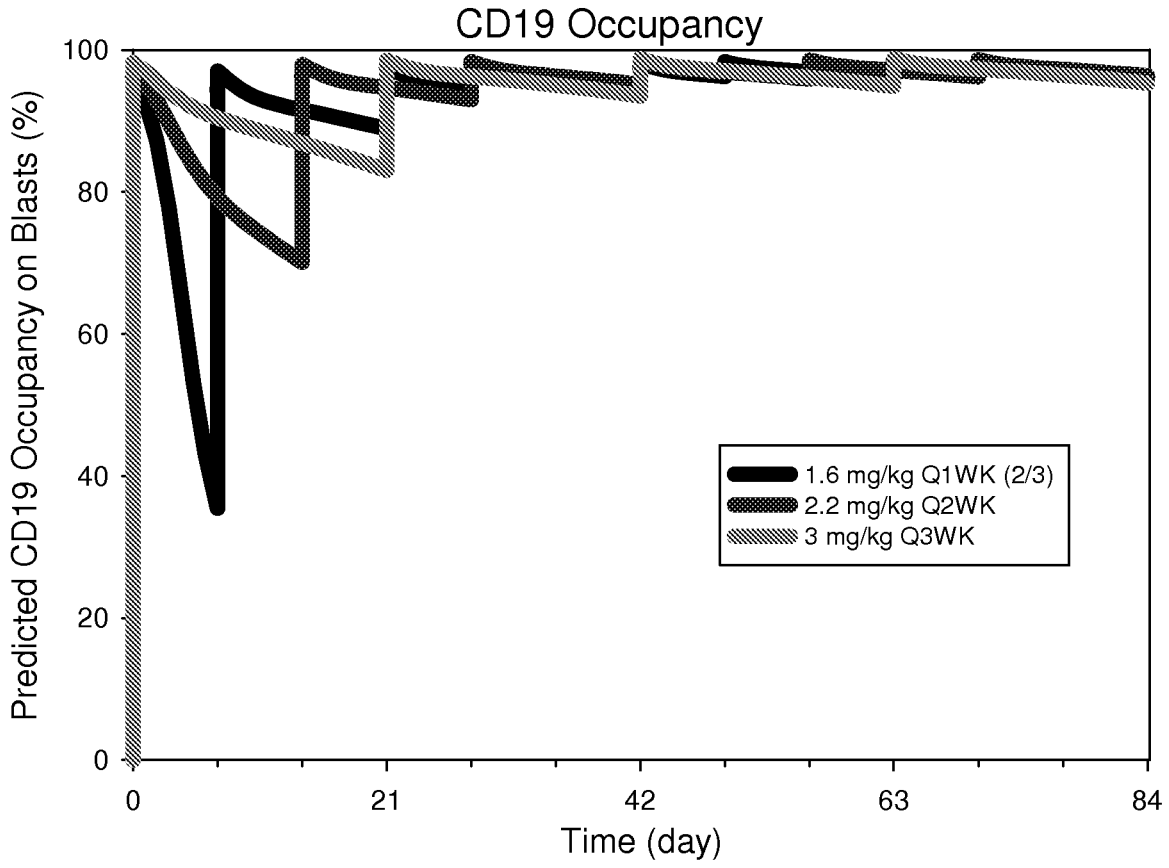

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
1.6 mg/kg Q1WK (2/3)
2.2 mg/kg Q2WK
3 mg/kg Q3WK

FIGURE 5B

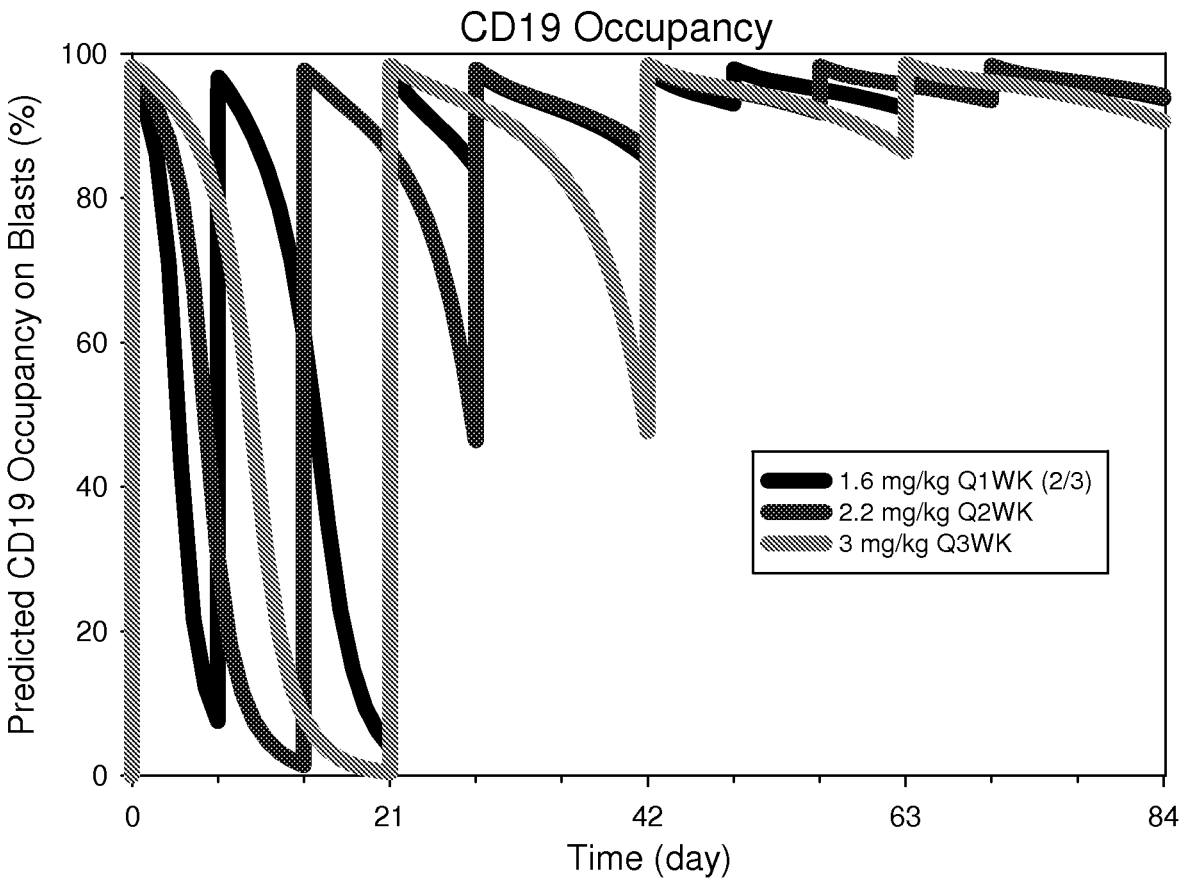

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
1.6 mg/kg Q1WK (2/3)
2.2 mg/kg Q2WK
3 mg/kg Q3WK

FIGURE 6A

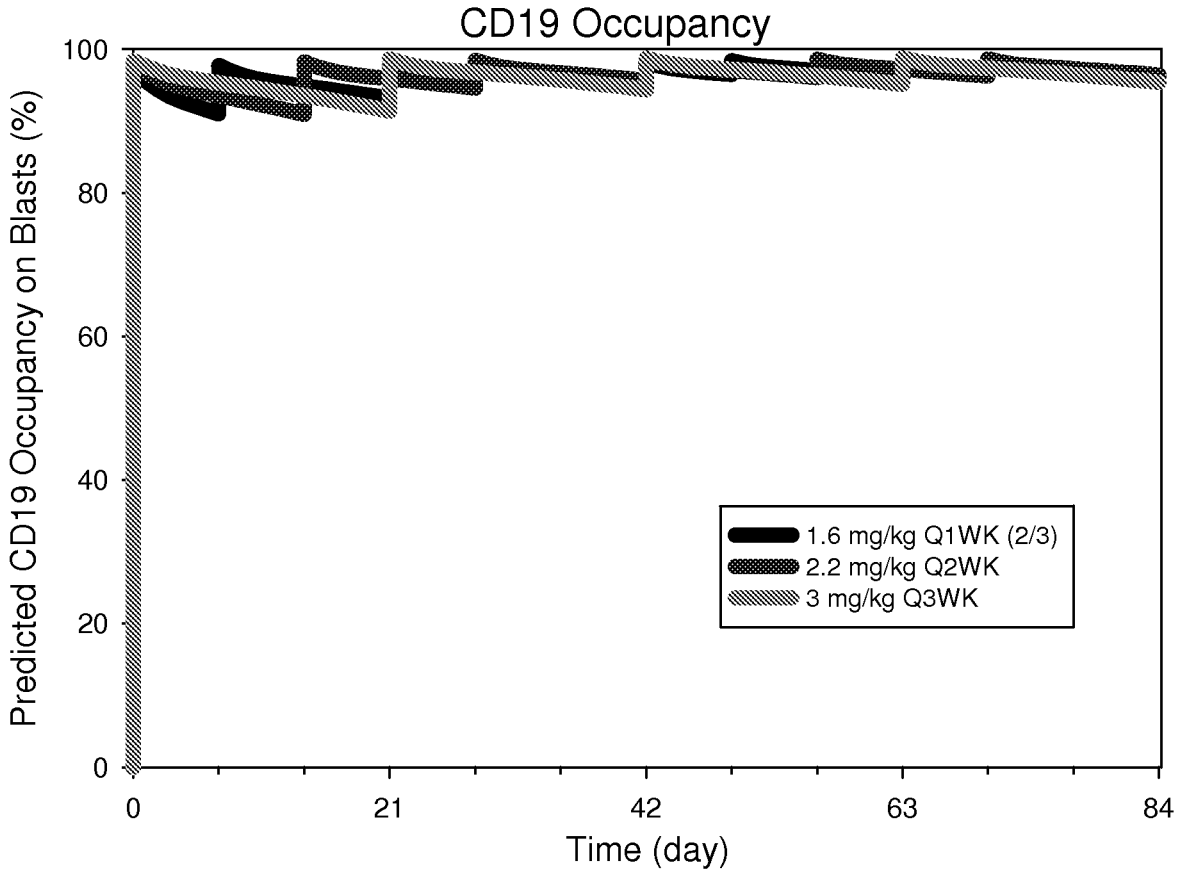

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
1.6 mg/kg Q1WK (2/3)
2.2 mg/kg Q2WK
3 mg/kg Q3WK

FIGURE 6B

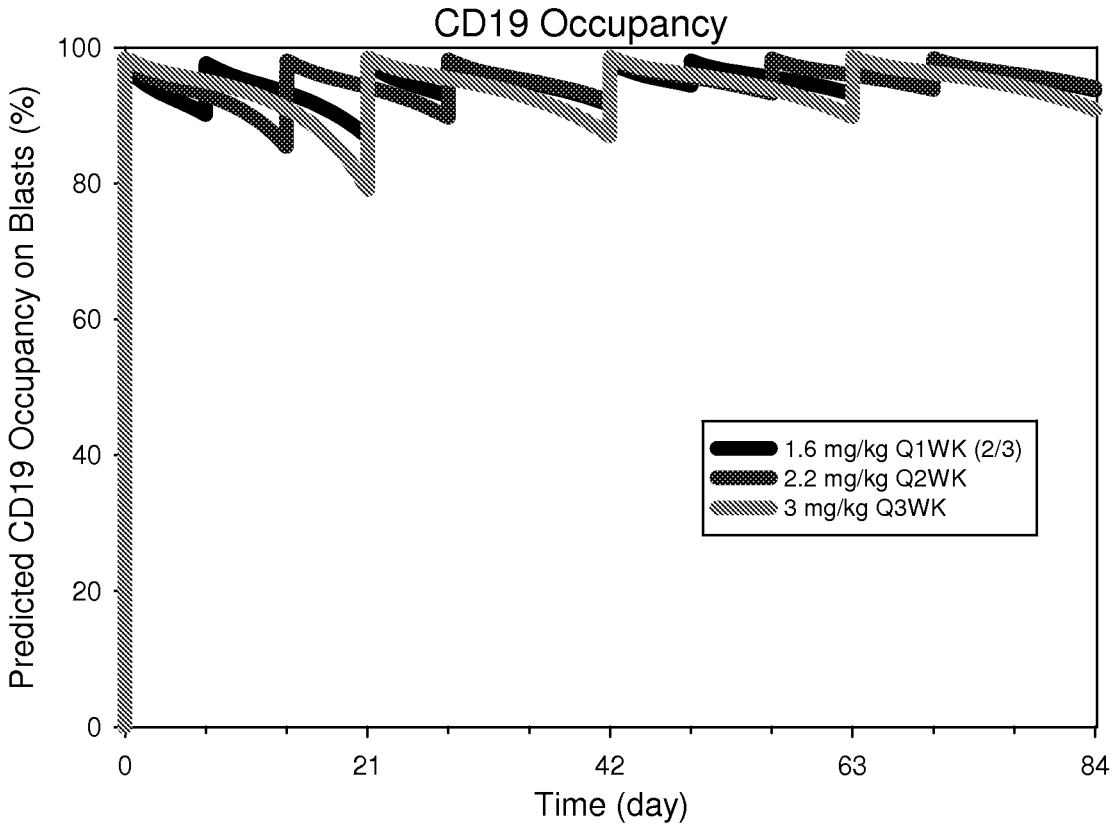

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
1.6 mg/kg Q1WK (2/3)
2.2 mg/kg Q2WK
3 mg/kg Q3WK

FIGURE 7A

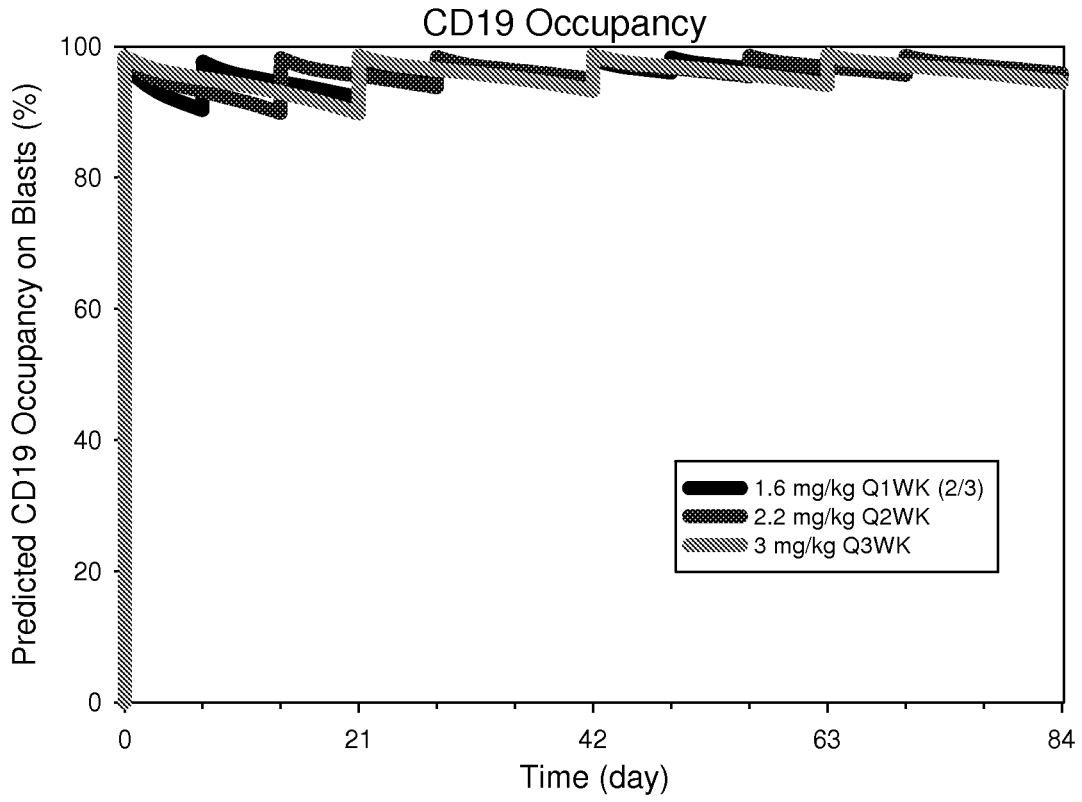

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
1.6 mg/kg Q1WK (2/3)
2.2 mg/kg Q2WK
3 mg/kg Q3WK

FIGURE 7B

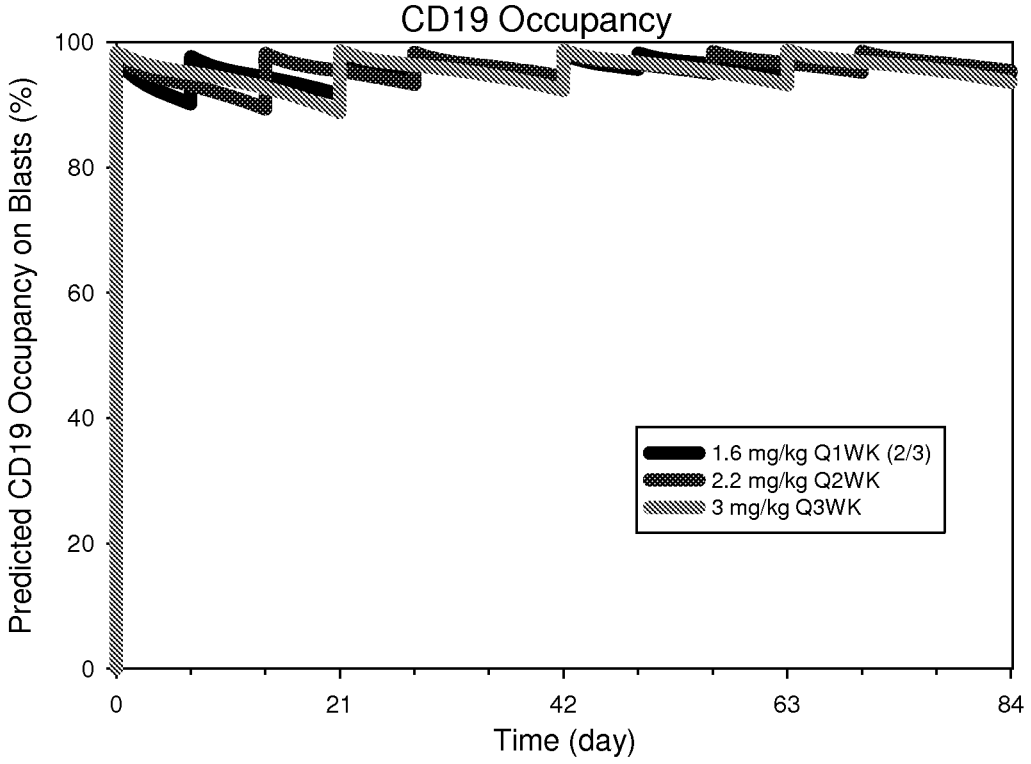

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
1.6 mg/kg Q1WK (2/3)
2.2 mg/kg Q2WK
3 mg/kg Q3WK

FIGURE 8A

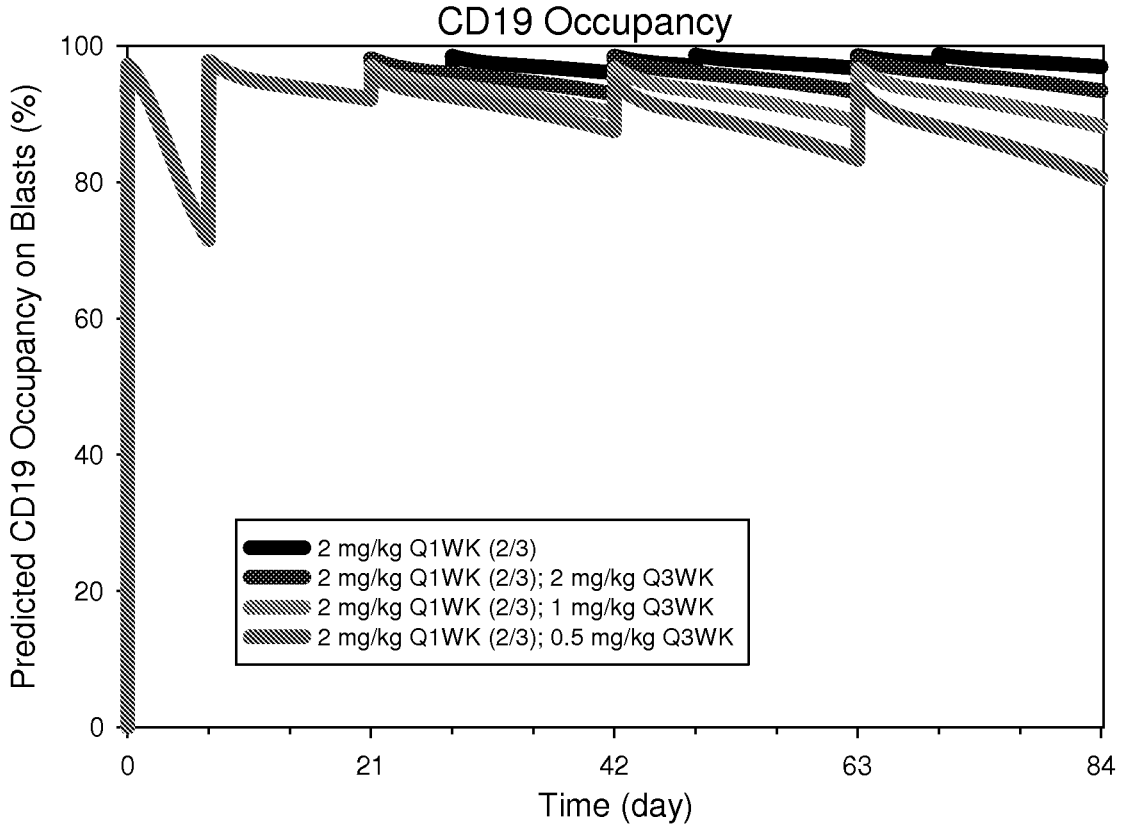

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
2 mg/kg Q1WK (2/3)
2 mg/kg Q1WK (2/3); 2 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 1 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 0.5 mg/kg Q3WK

FIGURE 8B

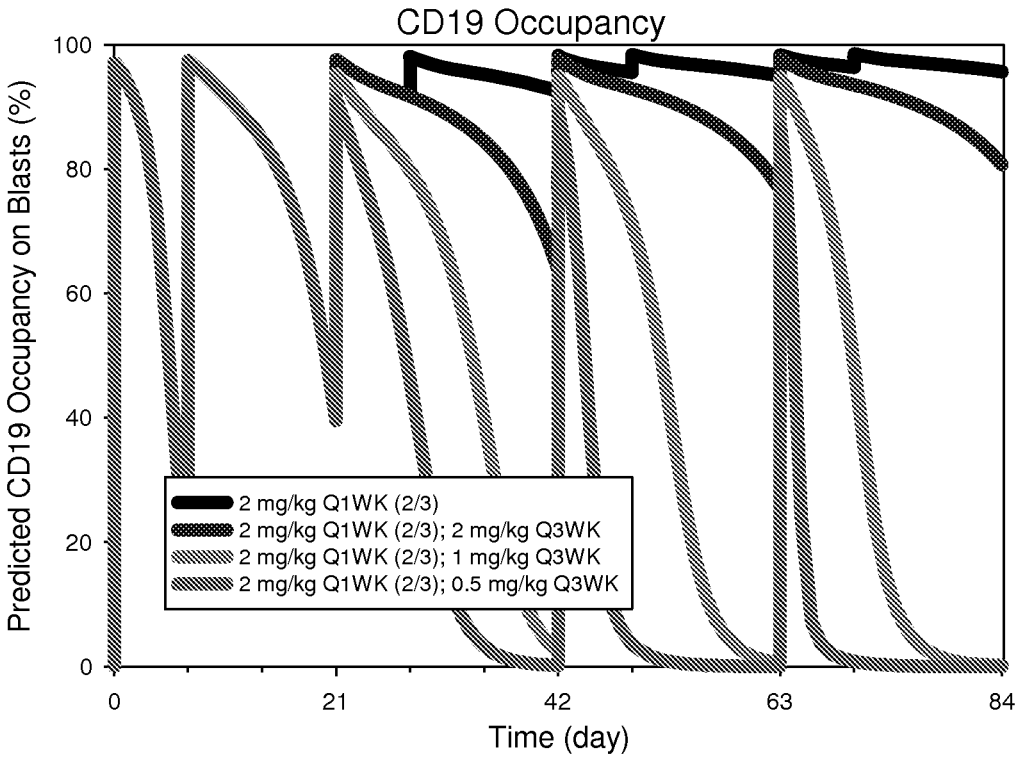

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
2 mg/kg Q1WK (2/3)
2 mg/kg Q1WK (2/3); 2 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 1 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 0.5 mg/kg Q3WK

FIGURE 9A

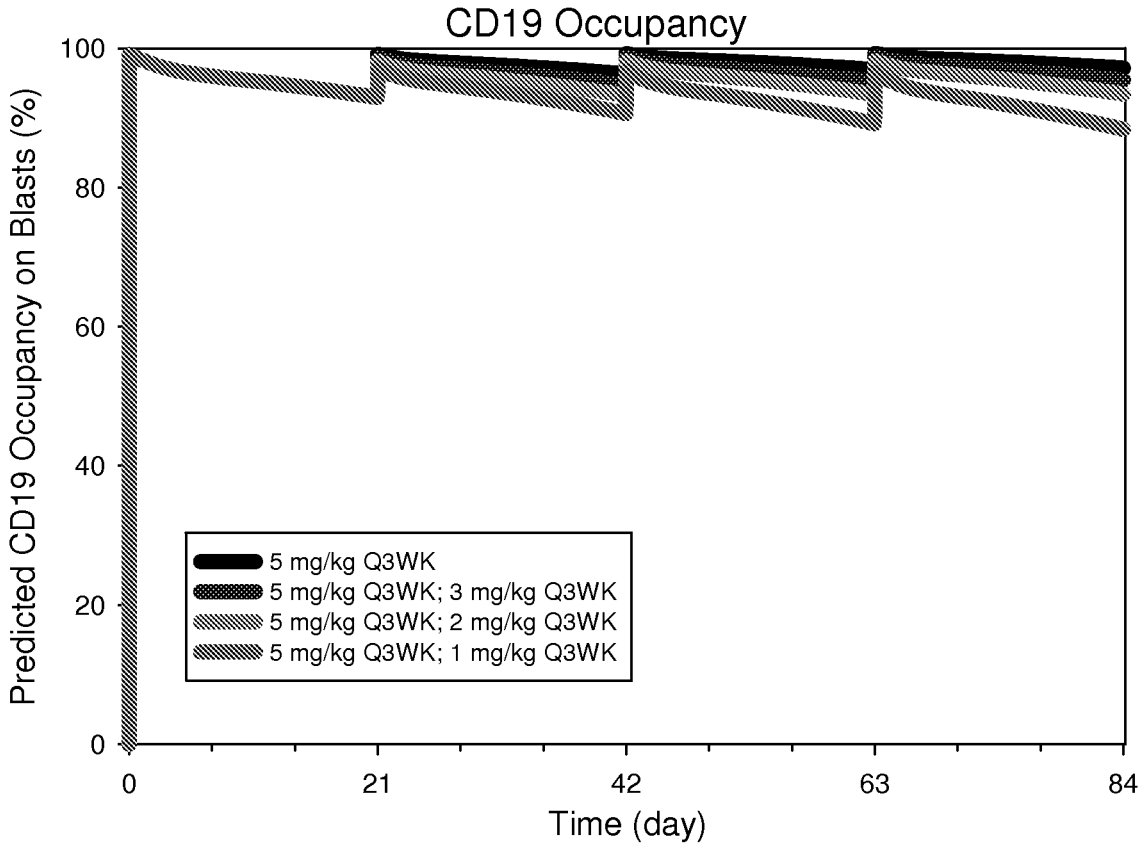

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
5 mg/kg Q3WK
5 mg/kg Q3WK; 3 mg/kg Q3WK
5 mg/kg Q3WK; 2 mg/kg Q3WK
5 mg/kg Q3WK; 1 mg/kg Q3WK

FIGURE 9B

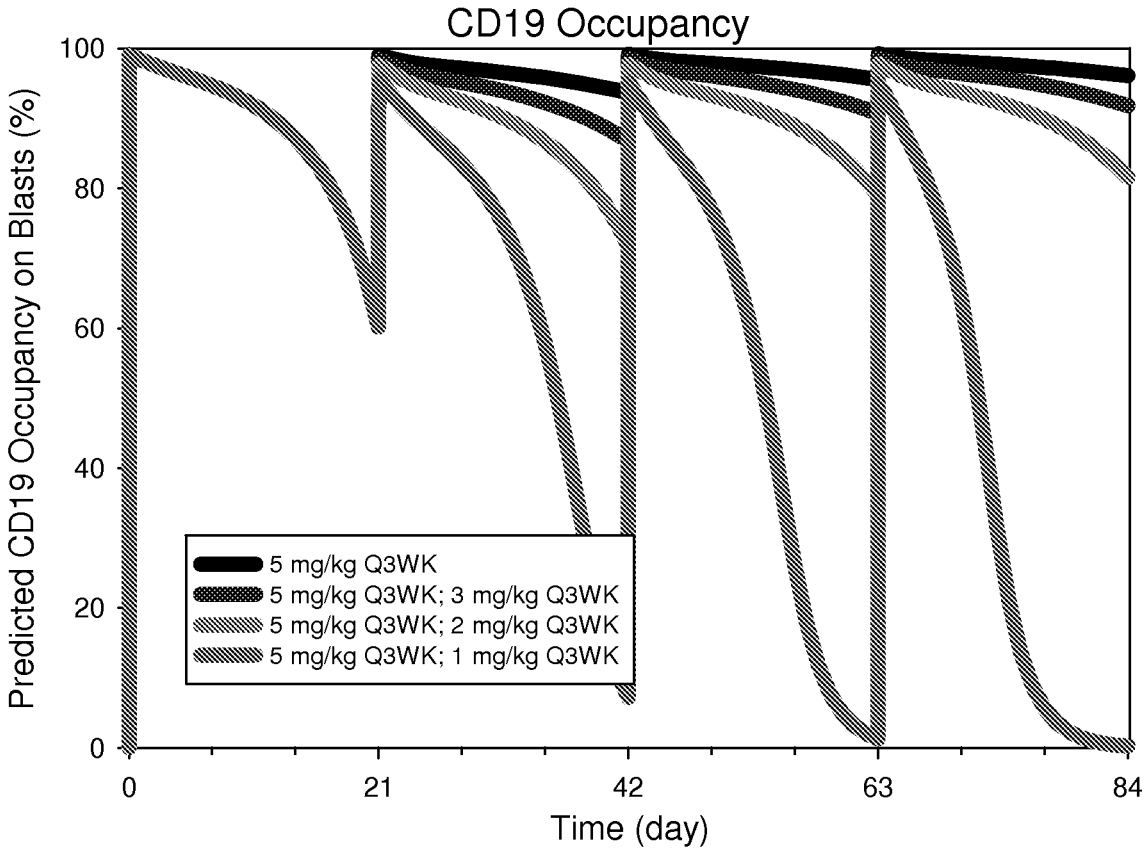

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
5 mg/kg Q3WK
5 mg/kg Q3WK; 3 mg/kg Q3WK
5 mg/kg Q3WK; 2 mg/kg Q3WK
5 mg/kg Q3WK; 1 mg/kg Q3WK

FIGURE 10A

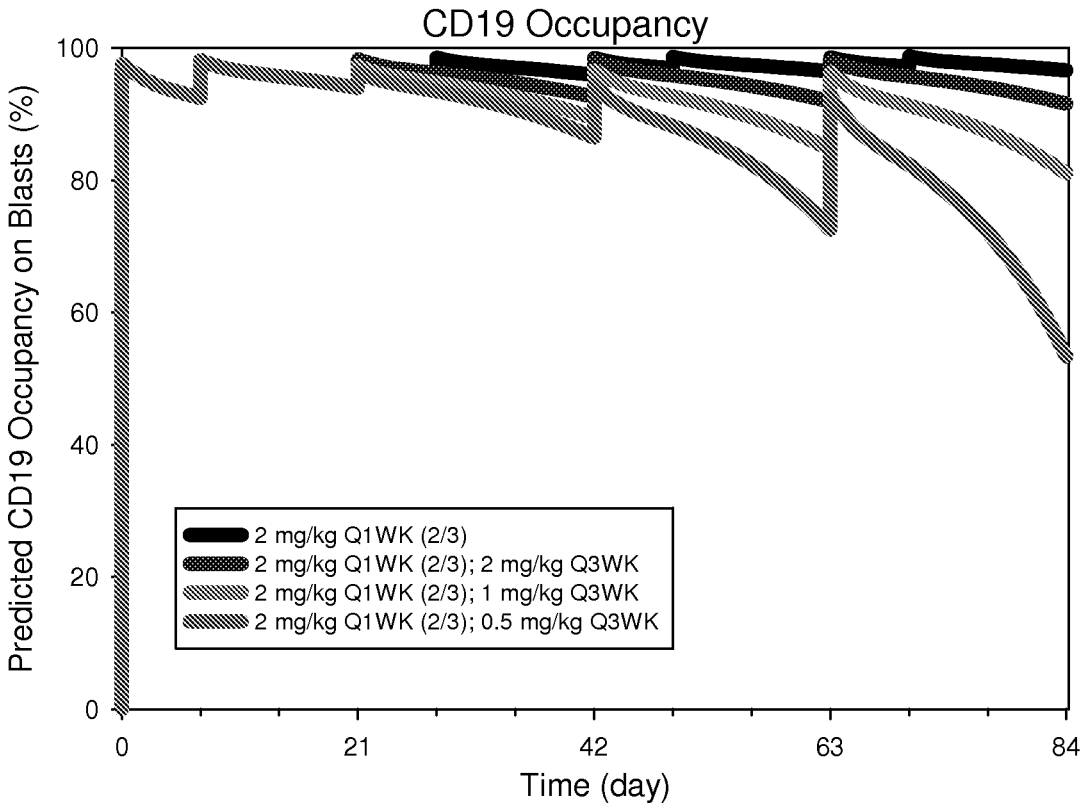

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
2 mg/kg Q1WK (2/3)
2 mg/kg Q1WK (2/3); 2 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 1 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 0.5 mg/kg Q3WK

FIGURE 10B

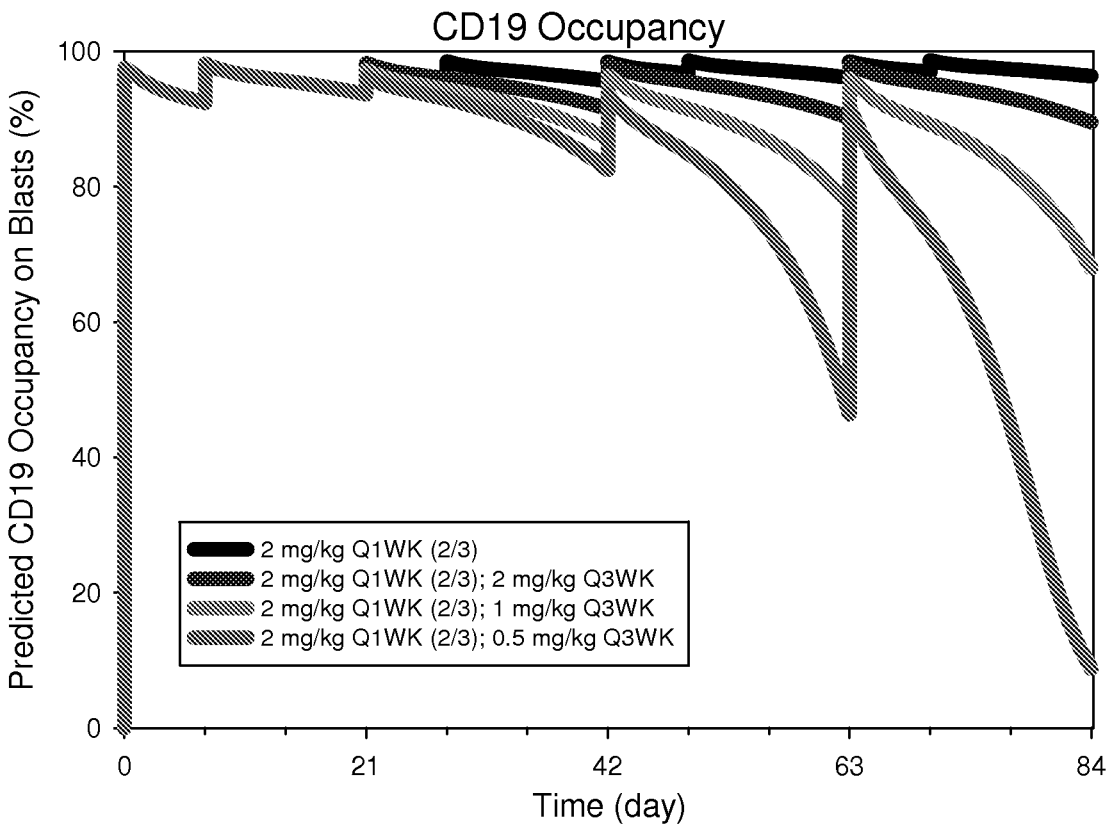

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
2 mg/kg Q1WK (2/3)
2 mg/kg Q1WK (2/3); 2 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 1 mg/kg Q3WK
2 mg/kg Q1WK (2/3); 0.5 mg/kg Q3WK

FIGURE 11A

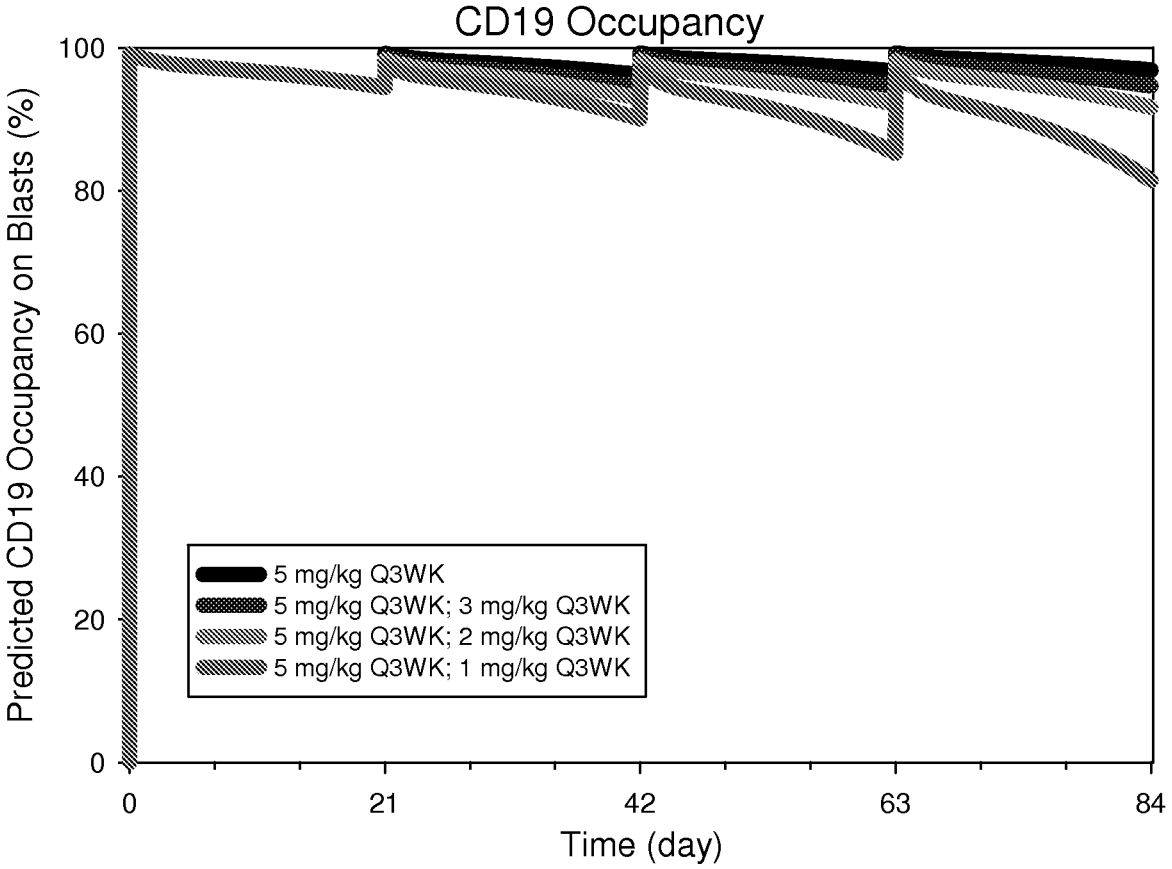

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
5 mg/kg Q3WK
5 mg/kg Q3WK; 3 mg/kg Q3WK
5 mg/kg Q3WK; 2 mg/kg Q3WK
5 mg/kg Q3WK; 1 mg/kg Q3WK

FIGURE 11B

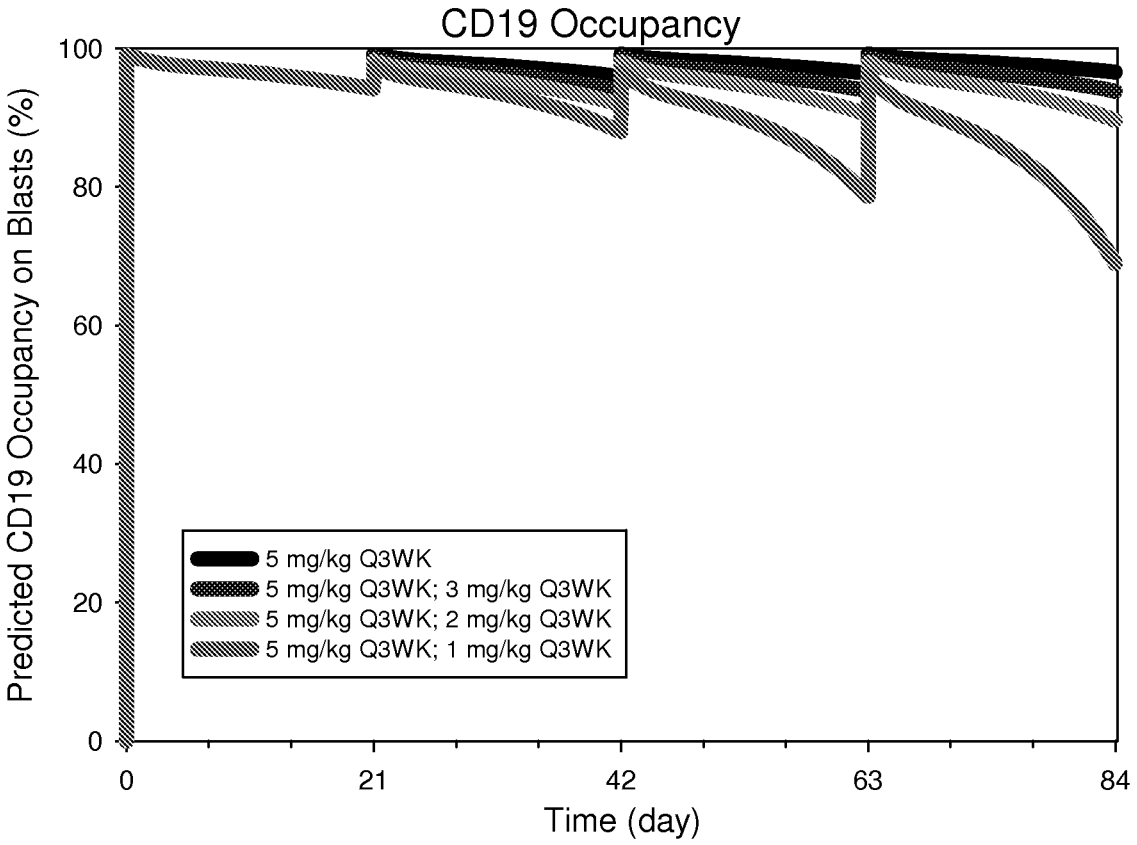
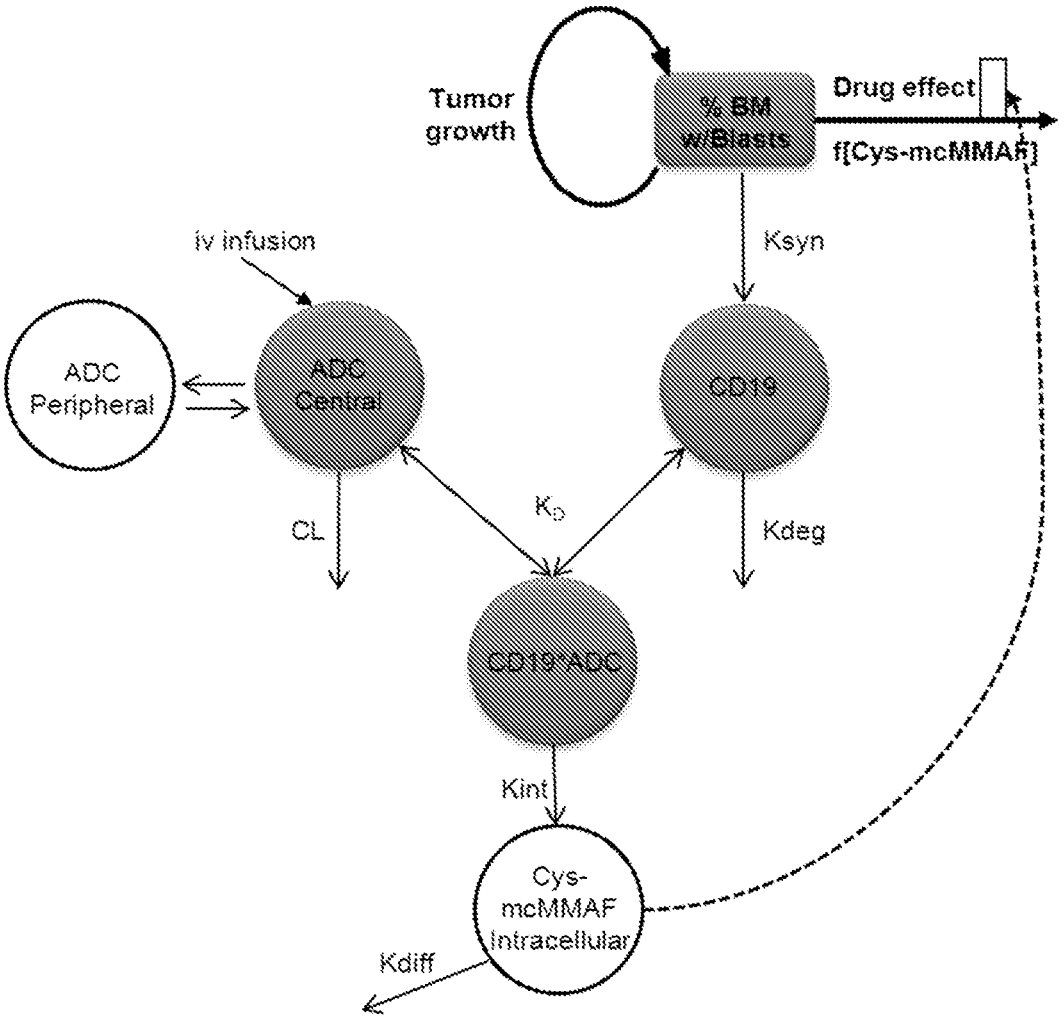

CD19 Occupancy
Predicted CD19 Occupancy on Blasts (%)
100
80
60
40
20
0
0
21
42
63
84
Time (day)
5 mg/kg Q3WK
5 mg/kg Q3WK; 3 mg/kg Q3WK
5 mg/kg Q3WK; 2 mg/kg Q3WK
5 mg/kg Q3WK; 1 mg/kg Q3WK

FIGURE 12


Tumor growth
% BM w/Blasts
Drug effect
f[Cys-mcMMAF]
Ksyn
iv infusion
ADC Peripheral
ADC Central
CD19
CL
$K_D$
Kdeg
CD19*ADC
Kint
Cys-mcMMAF Intracellular
Kdiff