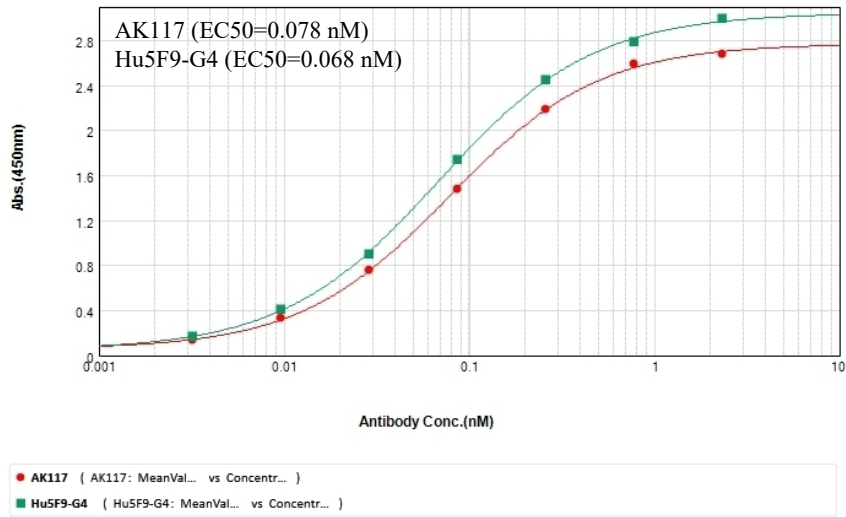


## Supplementary Materials

### Supplementary Figure S1

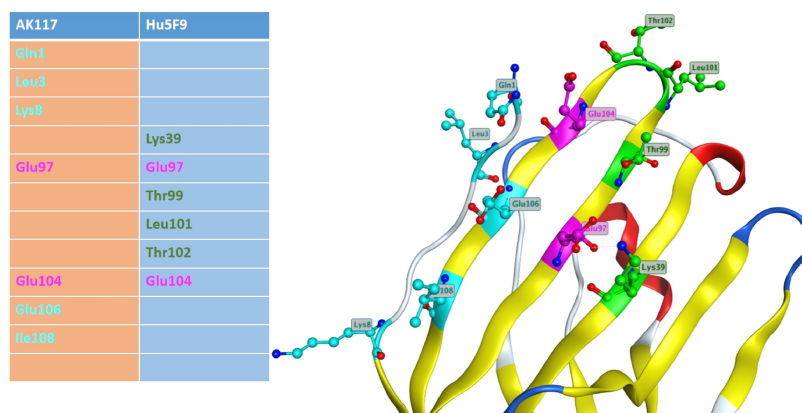


#### Supplementary Figure S1. Binding activity of AK117 with CD47.

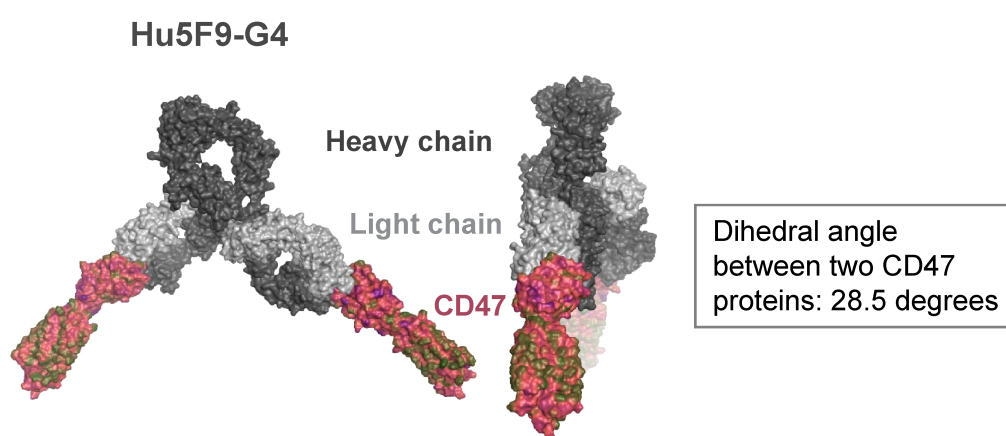
Binding of AK117 to recombinant ECD of human CD47 was tested by ELISA.

## Supplementary Figure S2

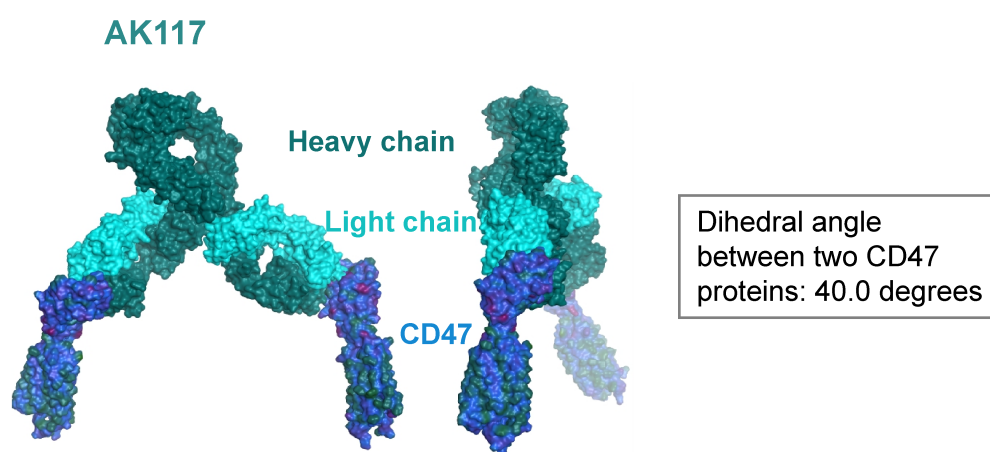
A



B

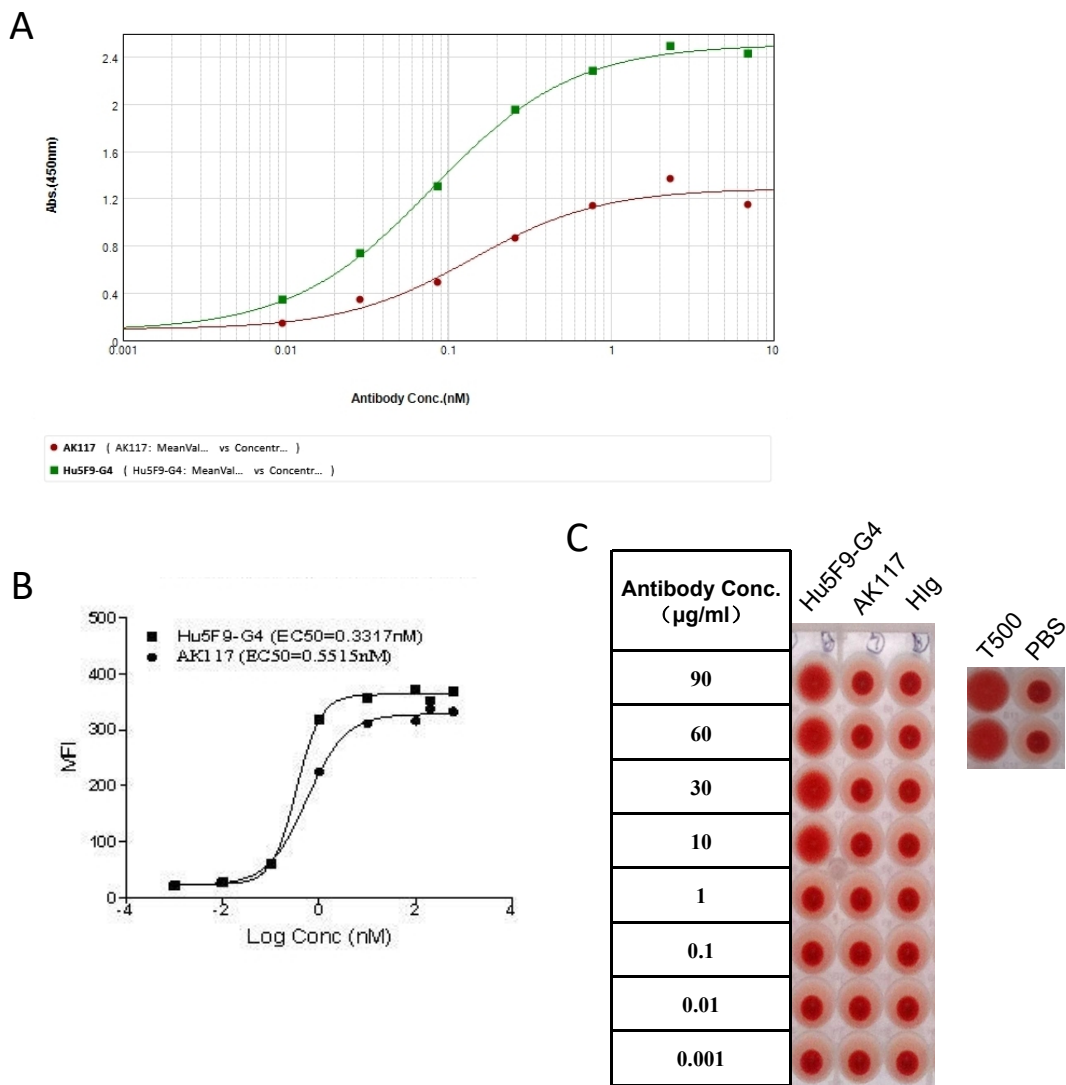


C



**Supplementary Figure S2. Simulation of AK117/CD47 structure.** (A) Overlapped residues within the binding epitopes of AK117 and Hu5F9-G4 on CD47. (B) Different views of Hu5F9-G4/CD47 structure with a dihedral angle of 28.5 degrees. (C) Different views of AK117/CD47 complex with a dihedral angle of 40.0 degrees.

## Supplementary Figure S3



**Supplementary Figure S3. AK117 bound to cynomolgus monkey CD47 with no hemagglutination of cynomolgus RBCs.** (A) Binding activity of AK117 to cynomolgus monkey CD47 protein was examined by ELISA. (B) Binding activity of AK117 or Hu5F9-G4 to cynomolgus monkey RBCs was determined by FACS. (C) AK117 does not induce hemagglutination of cynomolgus monkey RBCs, but Hu5F9-G4 does.

**Supplementary Table S1.** Hematological parameters in cynomolgus monkeys with different doses of AK117.

**A**

Group		Dose of AK117 (mg/kg)	Concentration of AK117 (mg/ml)	Number of cynomolgus monkey	Identification No. of cynomolgus monkeys	
					Male	Female
1	Vehicle control group	0	0	1	1811381	1811382
2	Low-dose group	10	1	1	1811383	1811384
3	Medium-dose group	30	3	1	1811385	1811386
4	High-dose group	100	10	1	1811387	1811388

Experimental design: 1 cynomolgus monkey/sex/group, single-dose intravenous injection at Day 1, euthanization at Day 15.

**B**

<b>1811381</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )	<b>1811382</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )
Day-1	5.87	135	41.2	0.079	Day-1	5.29	119	38.9	0.061
Day1	5.47	126	38.8	0.08	Day1	5.17	116	38.7	0.074
Day2	5.5	130	38.7	0.072	Day2	5.65	128	41.5	0.077
Day3	5.7	136	40.4	0.087	Day3	5.17	117	38.2	0.057
Day5	5.96	152	42.9	0.123	Day5	4.76	116	35.9	0.065
Day8	5.62	131	41.1	0.163	Day8	4.69	106	36.2	0.162
Day11	5.2	120	37.4	0.177	Day11	4.94	111	38.6	0.185
Day15	5.64	135	41.1	0.171	Day15	5.23	122	40.1	0.16

<b>1811383</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )	<b>1811384</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )
Day-1	5.66	133	43.1	0.09	Day-1	5.03	120	39.6	0.051
Day1	5.05	119	38.6	0.081	Day1	4.52	109	36	0.07
Day2	5.48	128	41.2	0.073	Day2	4.79	117	37.3	0.064
Day3	4.98	116	37.1	0.082	Day3	5	121	39	0.093
Day5	5.26	128	38.7	0.107	Day5	3.89	98	30	0.095
Day8	4.97	116	36.4	0.252	Day8	4.01	95	31.8	0.261
Day11	5.07	117	39.1	0.315	Day11	4.23	105	34.6	0.438
Day15	5.37	130	42.4	0.282	Day15	4.64	115	38.4	0.234

<b>1811385</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )	<b>1811386</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )
Day-1	6.22	137	46	0.064	Day-1	6.05	123	40.8	0.126
Day1	5.42	119	40.1	0.04	Day1	5.52	112	37.2	0.148
Day2	5.89	129	43.4	0.035	Day2	6.29	125	42.1	0.096
Day3	5.28	115	39.6	0.038	Day3	5.76	117	38.9	0.069
Day5	5.22	115	39.8	0.058	Day5	5.41	112	36.8	0.078
Day8	5.13	113	38.6	0.28	Day8	4.84	99	33.9	0.288
Day11	5.13	112	37.7	0.325	Day11	4.48	91	31	0.351
Day15	5.41	123	41.4	0.195	Day15	5.19	110	36.6	0.385

<b>18113837</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )	<b>1811388</b>	RBC ( $\times 10^{12}/L$ )	Hemoglobin (g/L)	Hematocrit (%)	Reticulocyte ( $\times 10^{12}/L$ )
Day-1	5.52	123	40.9	0.084	Day-1	6.66	140	48.1	0.082
Day1	4.92	112	36.7	0.086	Day1	6.01	127	44.9	0.1
Day2	5.23	119	38.4	0.071	Day2	6.52	137	47.6	0.079
Day3	5.18	118	38.5	0.09	Day3	5.91	125	42.7	0.085
Day5	4.36	100	31.7	0.133	Day5	4.59	98	32.4	0.121
Day8	4.26	96	30.7	0.3	Day8	4.87	103	35.9	0.472
Day11	4.24	98	33	0.448	Day11	4.45	100	34.7	0.578
Day15	4.65	111	36.2	0.35	Day15	5.19	118	42.7	0.516

Time points of blood collection: D-1, 2-4 h after administration at D1, D2, D3, D5, D8, D11 and D15. The hematological parameters monitored in individual cynomolgus monkeys: RBC, hemoglobin, hematocrit and reticulocyte.