Supplementary Table 1. Kinetic parameters of molecular binding and dissociation of the plant based anti-HIV Fc-fusion proteins and references with the CD64 and CD16a receptors via Surface Plasmon Resonance

Molecule	Host	Receptor	KD (M)	Ka1 (1/Ms)	Kd1 (1/s)	Ka2 (1/s)	Kd2 (1/s)
M7AMC34-HFBI (pNGV003)	BY-2 clone 003_1	hCD16A	2.640E-9	1.469E+6	0.02500	0.02544	0.004670
		hCD64	9.438E-11	2.010E+6	1.898E-4	1:1 model used	
HFBI-M7AMC34 (pNGV004)	BY-2 clone 004_16	hCD16A	1.759E-9	1.395E+6	0.01300	0.01830	0.004259
		hCD64	5.074E-10	3.843E+5	1.950E-4	1:1 model used	
hIgG1k (Sigma I5154)	Human	hCD16A	4.113E-7	2.226E+5	0.1058	0.003090	0.01986
		hCD64	9.469E-10	3.216E+5	3.045E-4	1:1 model used	
3BNC (plant IgG1)	*N. benthamiana*	hCD16A	1.113E-7	1.628E+5	0.01818	0.03514	0.03514
		hCD64	9.815E-10	5.372E+5	0.002496	0.008718	0.002335
M7AC34 (Ref. AlbaJuna)	Mammalian cells	hCD16A	1.493E-7	2.507E+5	0.05203	7.749E-4	0.001987
		hCD64	9.007E-12	8.410E+5	2.985E-4	0.001211	3.154E-5
M7AMC34 (pJJJ812)	*N. benthamiana*	hCD16A	4.460E-9	6.353E+5	0.01160	0.008276	0.002674
		hCD64	4.458E-11	2.171E+6	0.003746	0.01317	3.493E-4
HFBI-M7AMC34 (pJJJ811)	*N. benthamiana*	hCD16A	6.039E-9	5.936E+5	0.01483	0.008593	0.002740
		hCD64	8.886E-11	1.465E+6	8.654E-4	0.008453	0.001496

KD (*Equilibrium Dissociation Constant*: The ratio of the dissociation rate constant (Kd) to the association rate constant (Ka). Mathematically, KD = Kd / Ka). A lower KD indicates a tighter binding affinity (stronger interaction), while a higher KD suggests weaker binding; **Ka** (*Association Rate Constant*: The rate at which a ligand binds to a receptor. A higher Ka value indicates faster binding kinetics); **Kd** (*Dissociation Rate Constant:* The rate at which the ligand-receptor complex dissociates. A higher Kd value indicates faster dissociation kinetics).

References: hIgG1K (human cell produced IgG1), 3BNC (plant produced IgG1), M7AC34 (mammalian cell produced AlbaJuna candidate containing an IgG1 Fc domain)