

Supplemental Material to:

**Futa Mimoto, Tomoyuki Igawa, Taichi Kuramochi,
Hitoshi Katada, Shojiro Kadono, Takayuki
Kamikawa, Meiri Shida-Kawazoe and Kumihiro
Hattori**

**Novel asymmetrically engineered antibody Fc variant with
superior Fc γ R binding affinity and specificity compared
with afucosylated Fc variant**

2013; 5(2)

<http://dx.doi.org/10.4161/mabs.23452>

Supplementary tables

Supplementary Table 1.

Affinity for FcγRs and T_M of C_{H2} domain of Fc variants

Fc variants	FcγRIa K_D (nmol/L)	FcγRIIa ^{R131} K_D (μmol/L)	FcγRIIa ^{H131} K_D (μmol/L)	FcγRIIb K_D (μmol/L)	FcγRIIIa ^{F158} K_D (μmol/L)	FcγRIIIa ^{V158} K_D (μmol/L)	T_M (°C)
IgG1	0.23	0.88	0.66	6.0	1.4	0.31	71
control mAb2	0.25	1.0	0.93	4.2	2.6	0.39	70
afucosyl mAb	0.43	0.49	0.78	2.6	0.079	0.0069	69
homo-DLE	0.073	0.34	0.69	0.63	0.0091	0.0031	49
homo-VLPYLL	0.70	3.1	0.43	7.8	0.041	0.012	69
asym-mAb1	0.24	0.38	0.19	4.2	0.0012	0.00037	64

$T_M = T_M$ of C_{H2} domain

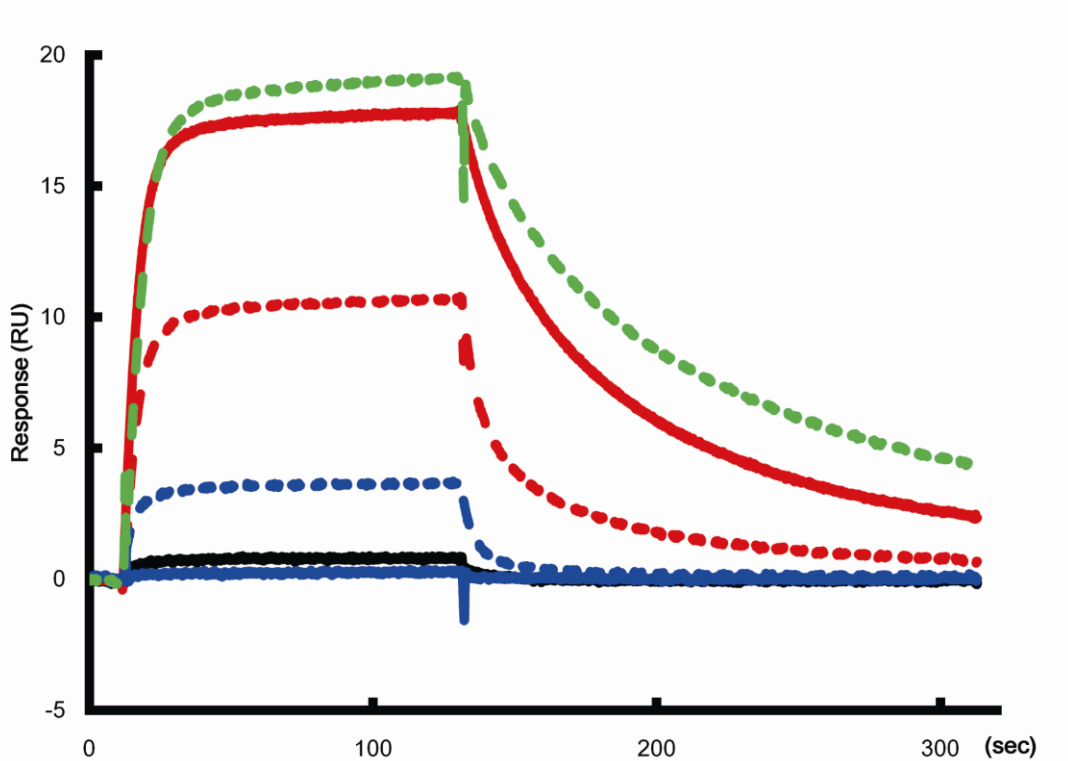
Supplementary Table 2.

The percentage of reduction from initial monomer peak area of Fc variants described in Table 1.

	2 weeks			4 weeks		
	1st assay (%)	2nd assay (%)	Average (%)	1st assay (%)	2nd assay (%)	Average (%)
control mAb1	0.40	0.48	0.44	1.2	1.4	1.3
hemi-YWA	0.77	0.98	0.88	1.4	1.4	1.4
hemi-DLE	6.5	6.5	6.5	9.7	9.5	9.6
homo-YWA	1.0	1.0	1.0	1.8	1.8	1.8
homo-DLE	8.9	8.8	8.9	15.5	15.7	15.6
DLE/YWA	1.3	1.3	1.3	2.4	2.5	2.5

Supplementary figure

Supplementary Figure 1. Sensorgrams of Fc variant binding to FcγRIIIa^{F158}.



SPR sensorgrams for a representative set of Fc variants as described in Table 1 are shown. Solid black line, control mAb1; solid red line, homo-DLE; dotted red line, hemi-DLE; solid blue line, homo-YWA; dotted blue line, hemi-YWA; and dotted green line, DLE/YWA.