

Supplementary Table 1: Associations between opsonizing antibodies and incidence of clinical disease during follow-up

Parasite strain	Unadjusted		Adjusted	
	IRR (95% CI)	<i>P</i>	IRR (95% CI)	<i>P</i>
3D7	0.69(0.45-1.05)	0.079	0.89(0.57-1.39)	0.618
D10	0.67(0.46-0.99)	0.046	0.74(0.49-1.10)	0.143
K1	0.59(0.39-0.90)	0.014	0.71(0.45-1.11)	0.131
HB3	0.59(0.40-0.87)	0.008	0.74(0.49-1.12)	0.165
E8B	0.63(0.42-0.93)	0.021	0.71(0.47-1.07)	0.100
P. ALTO	0.63(0.43-0.94)	0.025	0.79(0.52-1.19)	0.261
W2MEF	0.67(0.45-0.98)	0.043	0.85(0.56-1.28)	0.439
XHA_A	0.45(0.30-0.69)	<0.001	0.52(0.34-0.80)	0.003
XHA_B	0.56(0.38-0.82)	0.003	0.69(0.46-1.02)	0.062
XHA_C	0.55(0.37-0.83)	0.004	0.67(0.44-1.04)	0.072
XHA_D	0.49(0.32-0.73)	0.001	0.59(0.39-0.91)	0.016
XHA_E	0.56(0.37-0.85)	0.007	0.71(0.46-1.11)	0.136
XHA_K	0.59(0.40-0.87)	0.008	0.72(0.48-1.07)	0.103
XHA_L	0.53(0.35-0.79)	0.002	0.61(0.40-0.92)	0.018
XHA_M	0.57(0.39-0.83)	0.004	0.72(0.48-1.09)	0.118

Note: Phagocytosis responses from the entire cohort (n = 198) were stratified into 3 equal groups (tertiles): high, medium, and low antibody levels. Incidence Rate Ratios (IRRs) and 95 percent confidence intervals (95% CI) were calculated for all individuals (n = 198) by Poisson regression comparing high versus low tertiles and medium versus low responses with incidence of clinical malaria over the 6 month follow-up period; with only the results for high versus low comparisons shown. Unadjusted IRRs and IRRs adjusted for age and location (distance from coastline). Bold type indicates statistically significant associations.

Supplementary Table 2: Associations between opsonizing antibodies and incidence of clinical disease during follow-up in children uninfected at baseline

Parasite strain	Unadjusted		Adjusted	
	IRR (95% CI)	<i>P</i>	IRR (95% CI)	<i>P</i>
3D7	0.30(0.09-0.98)	0.047	0.48(0.14-1.70)	0.246
D10	0.40(0.17-0.95)	0.037	0.49(0.20-1.20)	0.119
K1	0.49(0.19-1.25)	0.134	0.62(0.23-1.67)	0.345
HB3	0.26(0.09-0.73)	0.010	0.32(0.11-0.96)	0.041
E8B	0.15(0.04-0.64)	0.010	0.18(0.04-0.74)	0.18
P. ALTO	0.07(0.01-0.48)	0.007	0.08(0.01-0.59)	0.013
W2MEF	0.17(0.01-48)	0.013	0.21(0.05-0.91)	0.037
XHA_A	0.12(0.03-0.50)	0.003	0.14(0.03-0.59)	0.007
XHA_B	0.18(0.06-0.59)	0.005	0.23(0.07-0.75)	0.015
XHA_C	0.29(0.10-0.81)	0.018	0.38(0.13-1.12)	0.080
XHA_D	0.17(0.04-0.71)	0.015	0.22(0.05-0.95)	0.042
XHA_E	0.17(0.05-0.54)	0.003	0.19(0.05-0.95)	0.042
XHA_K	0.26(0.09-0.73)	0.010	0.31(0.11-0.89)	0.029
XHA_L	0.16(0.05-0.52)	0.002	0.19(0.06-0.65)	0.008
XHA_M	0.46(0.23-0.92)	0.029	0.51(0.24-1.07)	0.074

Note: Phagocytosis responses from the entire cohort (n = 198) were stratified into 3 equal groups (tertiles): high, medium, and low antibody levels. Incidence Rate Ratios (IRRs) and 95 percent confidence intervals (95% CI) were calculated for individuals uninfected with *P. falciparum* at baseline (n = 64) by Poisson regression comparing high versus low tertiles and medium versus low responses with incidence of clinical malaria over the 6 month follow-up period; with only the results for high versus low comparisons shown. Unadjusted IRRs and IRRs adjusted for age and location (distance from coastline). Bold type indicates statistically significant associations.

Supplementary Table 3: Associations between opsonizing antibodies and incidence of clinical disease during follow-up in children infected at baseline

Parasite strain	Unadjusted		Adjusted	
	IRR (95% CI)	<i>P</i>	IRR (95% CI)	<i>P</i>
3D7	0.91(0.53-1.59)	0.750	1.07(0.60-1.88)	0.822
D10	0.82(0.50-1.33)	0.414	0.77(0.46-1.29)	0.321
K1	0.72(0.42-1.20)	0.210	0.80(0.46-1.39)	0.426
HB3	0.77(0.47-1.28)	0.321	0.93(0.55-1.56)	0.788
E8B	0.89(0.54-1.47)	0.660	0.93(0.56-1.56)	0.790
P. ALTO	0.94(0.58-1.54)	0.806	1.07(0.65-1.77)	0.786
W2MEF	0.99(0.61-1.63)	0.990	1.21(0.72-2.02)	0.475
XHA_A	0.59(0.36-0.99)	0.045	0.66(0.40-1.09)	0.106
XHA_B	0.66(0.42-1.04)	0.074	0.77(0.48-1.23)	0.270
XHA_C	0.71(0.43-1.17)	0.176	0.80(0.47-1.34)	0.391
XHA_D	0.60(0.37-0.98)	0.040	0.69(0.42-1.14)	0.148
XHA_E	0.85(0.51-1.43)	0.539	1.05(0.61-1.81)	0.867
XHA_K	0.75(0.47-1.20)	0.230	0.86(0.53-1.39)	0.535
XHA_L	0.72(0.43-1.18)	0.190	0.70(0.42-1.17)	0.175
XHA_M	1.17(0.73-1.90)	0.520	1.05(0.62-1.79)	0.856

Note: Phagocytosis responses from the entire cohort (n = 198) were stratified into 3 equal groups (tertiles): high, medium, and low antibody levels. Incidence Rate Ratios (IRRs) and 95 percent confidence intervals (95% CI) were calculated for individuals infected with *P. falciparum* at baseline (n = 134) by Poisson regression comparing high versus low tertiles and medium versus low responses with incidence of clinical malaria over the 6 month follow-up period; with only the results for high versus low comparisons shown. Unadjusted IRRs and IRRs adjusted for age and location (distance from coastline). Bold type indicates statistically significant associations

Supplementary Table 4: Correlation between opsonizing antibodies and MSP1-19 antibodies

Parasite strain	<i>Spearman (R)</i>	<i>P</i>
3D7	0.64	0.0001
D10	0.62	0.0001
K1	0.64	0.0001
HB3	0.75	0.0001
E8B	0.62	0.0001
P. ALTO	0.82	0.0001
W2MEF	0.72	0.0001
XHA_A	0.72	0.0001
XHA_B	0.81	0.0001
XHA_C	0.69	0.0001
XHA_D	0.74	0.0001
XHA_E	0.65	0.0001
XHA_K	0.74	0.0001
XHA_L	0.73	0.0001
XHA_M	0.73	0.0001

Phagocytosis responses from the entire cohort (n=198) were correlated to MSP1-19 antibodies measured by ELISA as previously described in:

Wilson DW, Fowkes FJI, Gilson PR, Elliott SR, Tavul L, Michon P, Dabod E, Siba PM, Mueller I, Crabb BS, Beeson JG: **Quantifying the Importance of MSP1-19 as a Target of Growth-Inhibitory and Protective Antibodies against Plasmodium falciparum in Humans.** *PLoS ONE* 2011, **6**:e27705. (34).