

S1 Table. Association and dissociation curves fitted by a double-exponential function:

$\alpha_1 \exp(-\lambda_1 * t) + \alpha_2 \exp(-\lambda_2 * t)$ with two pre-exponentials (α_1 and α_2) and two eigenvalues

(λ). These values can be used to generate the observed raw data but these fits are not the ones

that have been calculated when modeling the reaction mechanism.

<i>Pf</i>AMA1- <i>Pf</i>RON2sp1		20 °C	25 °C	30 °C
Association <i>Pf</i> AMA1 (50 nM)	$\alpha_1=$	-0.6295 (± 0.02664)	-0.6350 (± 0.0321)	-0.7171 (± 0.0438)
	$\lambda_1=$	0.0210 (± 0.0030)	0.0320 (± 0.0029)	0.0382 (± 0.0038)
	$\alpha_2=$	-0.3705 (± 0.0152)	-0.3650 (± 0.0366)	-0.2829 (± 0.0467)
	$\lambda_2=$	0.0042 (± 0.0005)	0.0060 (± 0.0010)	0.0100 (± 0.0010)
Association <i>Pf</i> AMA1 (100 nM)	$\alpha_1=$	-0.5323 (± 0.0157)		
	$\lambda_1=$	0.045 (± 0.0030)		
	$\alpha_2=$	-0.4677 (± 0.0122)		
	$\lambda_2=$	0.0075 (± 0.0005)		
Association <i>Pf</i> AMA1 (200 nM)	$\alpha_1=$	-0.1799 (± 0.0198)		
	$\lambda_1=$	0.0150 (± 0.0010)		
	$\alpha_2=$	-0.8201 (± 0.028)		
	$\lambda_2=$	0.0800 (± 0.0010)		
Dissociation	$\alpha_1=$	0.2675 (± 0.0578)	0.1987 (± 0.0759)	0.1599 (± 0.0236)
	$\lambda_1=$	0.00214 (± 0.0007)	0.0035 (± 0.0007)	0.0050 (± 0.0008)
	$\alpha_2=$	0.7325 (± 0.0613)	0.8013 (± 0.0550)	0.8401 (± 0.0134)
	$\lambda_2=$	0.0003 (± 0.00003)	0.00063 (± 0.0001)	0.0012 (± 0.0001)
ΔDII- <i>Pf</i>AMA1- <i>Pf</i>RON2sp1		20 °C	25 °C	30 °C
Association Δ DII- <i>Pf</i> AMA1 (50 nM)	$\alpha_1=$	-0.2424 (± 0.0720)	-0.7735 (± 0.0240)	-0.4853 (± 0.0600)
	$\lambda_1=$	0.0087 (± 0.0016)	0.0369 (± 0.0065)	0.0779 (± 0.0100)
	$\alpha_2=$	-0.7576 (± 0.0710)	-0.2264 (± 0.0240)	-0.5147 (± 0.0600)
	$\lambda_2=$	0.0325 (± 0.0029)	0.0149 (± 0.0067)	0.0306 (± 0.0149)
Association Δ DII- <i>Pf</i> AMA1 (100 nM)	$\alpha_1=$	-0.3016 (± 0.0349)		
	$\lambda_1=$	0.015 (± 0.0020)		
	$\alpha_2=$	-0.6984 (± 0.0498)		
	$\lambda_2=$	0.0927 (± 0.0122)		
Association Δ DII- <i>Pf</i> AMA1 (200 nM)	$\alpha_1=$	-0.0999 (± 0.0900)		
	$\lambda_1=$	0.030 (± 0.0050)		
	$\alpha_2=$	-0.9001 (± 0.0900)		
	$\lambda_2=$	0.2248 (± 0.0200)		
Dissociation	$\alpha_1=$	0.5449 (± 0.0390)	0.4812 (± 0.0502)	0.5239 (± 0.0851)
	$\lambda_1=$	0.0032 (± 0.0003)	0.0060 (± 0.0009)	0.0180 (± 0.0008)
	$\alpha_2=$	0.4551 (± 0.0460)	0.5115 (± 0.0633)	0.4849 (± 0.0800)
	$\lambda_2=$	0.0451 (± 0.0105)	0.0906 (± 0.008)	0.1200 (± 0.00010)