

**Supporting Table 3: Mean value and standard deviation of optimized parameters**

Parameter	Unit	Mean value	Standard deviation	rel. Std
$k_{10}$	(Ms) <sup>-1</sup>	$7.19 \times 10^4$	$2.66 \times 10^4$	0.37
$Kd_{10}$	M	$2.86 \times 10^{-7}$	$9.50 \times 10^{-7}$	3.32
$\alpha_{10}$	s <sup>-1</sup>	0.24	0.31	1.26
$k_{11}$	(Ms) <sup>-1</sup>	$3.80 \times 10^4$	$2.95 \times 10^4$	0.78
$Kd_{11}$	M	$8.80 \times 10^{-7}$	$1.57 \times 10^{-6}$	1.78
$\alpha_{11}$	s <sup>-1</sup>	0.31	0.34	1.08
$k_{12}$	(Ms) <sup>-1</sup>	$2.27 \times 10^5$	$1.69 \times 10^5$	0.74
$Kd_{12}$	M	$5.14 \times 10^{-8}$	$6.34 \times 10^{-8}$	1.23
$k_{13}$	(Ms) <sup>-1</sup>	$4.65 \times 10^5$	$8.87 \times 10^{-4}$	0.19
$Kd_{13}$	M	$1.21 \times 10^{-8}$	$8.43 \times 10^{-9}$	0.70
$k_{14}$	(Ms) <sup>-1</sup>	$2.44 \times 10^5$	$1.59 \times 10^5$	0.65
$Kd_{14}$	M	$4.28 \times 10^{-8}$	$5.18 \times 10^{-8}$	1.21
$k_{15}$	s <sup>-1</sup>	0.27	0.29	1.10
$k_{17}/k_{19}$	(Ms) <sup>-1</sup>	$7.58 \times 10^4$	$2.88 \times 10^4$	0.38
$Kd_{17}/Kd_{19}$	M	$2.53 \times 10^{-7}$	$3.52 \times 10^{-7}$	1.39
$\alpha_{17}$	s <sup>-1</sup>	0.31	0.33	1.07
$\alpha_{19}$	s <sup>-1</sup>	0.28	0.33	1.17
$k_{18}/k_{20}$	(Ms) <sup>-1</sup>	$7.07 \times 10^3$	$7.41 \times 10^3$	1.05
$Kd_{18}/Kd_{20}$	M	$3.36 \times 10^{-6}$	$3.02 \times 10^{-6}$	0.90
$\beta_{18}$	s <sup>-1</sup>	1.24	1.55	1.24
$\beta_{20}$	s <sup>-1</sup>	1.50	1.48	0.98
$k_{21}$	(Ms) <sup>-1</sup>	$2.70 \times 10^5$	$1.70 \times 10^5$	0.63
$Kd_{21}$	M	$3.65 \times 10^{-8}$	$3.87 \times 10^{-8}$	1.06
$k_{22}$	(Ms) <sup>-1</sup>	$2.56 \times 10^5$	$1.74 \times 10^5$	0.68
$Kd_{22}$	M	$4.89 \times 10^{-8}$	$7.60 \times 10^{-8}$	1.56
$k_{23}$	(Ms) <sup>-1</sup>	$1.15 \times 10^4$	$4.94 \times 10^3$	0.43
$Kd_{23}$	M	$1.18 \times 10^{-6}$	$1.48 \times 10^{-6}$	1.26
$\alpha_{23}$	s <sup>-1</sup>	0.44	0.36	0.83