

**Table S4: Model parameters.**

name	value (det. model)	name	value (stoch. model)
$h_a(25^\circ\text{C})$	3	$\zeta$	1.45 molecules/nM
$h_a(37^\circ\text{C})$	3	$\tilde{h}_a(25^\circ\text{C})$	(no change)
$k_a(25^\circ\text{C})$	6.09 nM	$\tilde{h}_a(37^\circ\text{C})$	(no change)
$k_a(37^\circ\text{C})$	10.23 nM	$\tilde{k}_a(25^\circ\text{C})$	$\zeta k_a(25^\circ\text{C})$
$h_r(25^\circ\text{C})$	2	$\tilde{k}_a(37^\circ\text{C})$	$\zeta k_a(37^\circ\text{C})$
$h_r(37^\circ\text{C})$	2	$\tilde{h}_r(25^\circ\text{C})$	(no change)
$k_r(25^\circ\text{C})$	12.22 nM	$\tilde{h}_r(37^\circ\text{C})$	(no change)
$k_r(37^\circ\text{C})$	42.67 nM	$\tilde{k}_r(25^\circ\text{C})$	$\zeta k_r(25^\circ\text{C})$
$\alpha_0$	0.002 nM/min	$\tilde{k}_r(37^\circ\text{C})$	$\zeta k_r(37^\circ\text{C})$
$\alpha$	0.71 nM/min	$\alpha_0$	(no change)
		$\alpha$	(no change)
		$\tilde{\alpha}$	$\zeta\alpha$
		$\tilde{\alpha}_0$	$\zeta\alpha_0$
$\delta_0$	$5.2 \cdot 10^{-6}/\text{min}$		(no change)
$\delta_1$	$0.2469/^\circ\text{C}$		(no change)

Parameters used in the deterministic model (left column) and the stochastic model (right column) describing the shift experiment.