

Table S2

Parameter	Description	Value	Unit
k_1	On rate for binding of CheA3 and CheA4	100	(μMs^{-1})
k'_1	On rate for binding of CheA3-P and CheA4	100	(μMs^{-1})
k_2	Off rate for binding of CheA3 and CheA4	10	s^{-1}
k'_2	Off rate for binding of CheA3-P and CheA4	10	s^{-1}
k_5	K_{cat} for phosphorylation of CheA3 by CheA4	varied	s^{-1}
k'_5	K_{cat} for phosphorylation of CheA3 by CheA4	varied	s^{-1}
k'_6	CheA4/CheA3-P to CheY6 Phosphotransfer	0.775	(μMs) ⁻¹
k''_6	CheA4/CheA3-P to CheY6 Phosphotransfer	0.775	(μMs) ⁻¹
k_7	CheA3-P to CheY6 Reverse phosphotransfer	0.00283	(μMs) ⁻¹
k'_7	CheA4/CheA3-P to CheY6 Reverse phosphotransfer	0.00283	(μMs) ⁻¹
k''_7	CheA4/CheA3-P to CheY6 Reverse phosphotransfer	0.00283	(μMs) ⁻¹