

Table 1. Complex formation reactions

Reaction		Rate coefficient (s ⁻¹)
$M + T \rightarrow TM$	k_{on}	0.000025
$TM + C \rightarrow TMC$	k_3	0.00004
$TMC + M \rightarrow TMCM$	k_3	0.00004
$TMCM + T \rightarrow TMCMT$		
$TMC + TM \rightarrow TMCMT$		
$TM \rightarrow T + M$	k_{off}	
<ul style="list-style-type: none"> • $TAg \rightarrow T + Ag$ 		0.019
<ul style="list-style-type: none"> • $TEg \rightarrow T + Eg$ 		100
<ul style="list-style-type: none"> • $TAnt \rightarrow T + Ant$ 		1
$TMC \rightarrow TM + C$	k_{-3}	0.0001
$TMC \rightarrow T + M + C$	k_{off}	
<ul style="list-style-type: none"> • $TAgC \rightarrow T + Ag + C$ 		0.019
<ul style="list-style-type: none"> • $TEgC \rightarrow T + Eg + C$ 		100
<ul style="list-style-type: none"> • $TAntC \rightarrow T + Ant + C$ 		1
$TMCM \rightarrow TMC + M$	k_{-3}	0.0001
$TMCM \rightarrow TM + C + M$	k_{-3}	0.0001
$TMCM \rightarrow T + M + C + M$	k_{off}	
<ul style="list-style-type: none"> • $TAgCM \rightarrow T + Ag + C + M$ 		0.019
<ul style="list-style-type: none"> • $TEgCM \rightarrow T + Eg + C + M$ 		100
<ul style="list-style-type: none"> • $TAntCM \rightarrow T + Ant + C + M$ 		1
$TMCMT \rightarrow T + MCMT$	k_{off}	
<ul style="list-style-type: none"> • $TAgCMT \rightarrow T + AgCMT$ 		0.019
<ul style="list-style-type: none"> • $TEgCMT \rightarrow T + EgCMT$ 		100
<ul style="list-style-type: none"> • $TAntCMT \rightarrow T + AntCMT$ 		1
$TMCMT \rightarrow TMC + MT$	k_{-3}	0.0001
$TMCMT \rightarrow TM + CMT$	k_{-3}	0.0001
$TMCMT \rightarrow TMCM + T$	k_{off}	

• $\text{TMCAgT} \rightarrow \text{TMCAg} + \text{T}$		0.019
• $\text{TMCEgT} \rightarrow \text{TMCEg} + \text{T}$		100
• $\text{TMCAntT} \rightarrow \text{TMCAnt} + \text{T}$		1

Reactions

Reaction		Rate coefficient (s^{-1})
$\text{Tpp}[n]\dots \rightarrow \text{Tpn}[n]\dots$	$2k_{\text{dp}}$	0.14
$\text{Tpn}[n]\dots \rightarrow \text{Tnn}[n]\dots$	k_{dp}	0.07
$\text{Tpp}[Z/Zp]\dots \rightarrow X$		Dephosphorilation does not occur (i.e ZAP70 protect ζ -chain phosphorilation)
$\text{Tpp}[Zp]\dots \rightarrow \text{Tpp}[Z]\dots$	k_{ZpZ1}	0.001
$\text{Tpp}[Z/Zp]\dots \rightarrow \text{Tpp}[n]+Z/Zp$	k_{dZ}	0.01

Reaction		Rate coefficient (s^{-1})
$\dots\text{C}^n[\text{Shp1P}]\dots \rightarrow \dots\text{C}^n[n]\dots + \text{Shp1P}$	k_{CdeShp}	0.1
$\dots\text{Cpn}[\text{Shp1P}]\dots \rightarrow \dots\text{Cnn}[\text{Shp1P}]\dots$	k_{Cdeact1}	150
$\dots\text{Cp}^?[\text{?}]\dots \rightarrow \dots\text{Cn}^?[\text{?}]\dots$	k_{Cdeact2}	0.003
$\dots\text{C}^n[n]\dots \rightarrow \dots\text{C}^n[n]\dots$	k_{Cdeprot}	0.3

$\text{T}^?[\text{?}]\text{MCn}^?[\text{?}]\dots \rightarrow \text{TMCP}^?[\text{?}]\dots$	k_{a}	0.2
$\text{Tnn}[n]\text{MCn}^?[\text{?}]\dots \rightarrow \text{Tpn}[n]\text{MCn}^?[\text{?}]\dots$	$2k_{\text{pT1}}$	0.08
$\text{Tp}[_]\text{MCn}^?[\text{?}]\dots \rightarrow \text{Tpp}[_]\text{MCn}^?[\text{?}]\dots$	k_{pT1}	0.04
$\text{Tnn}[n]\text{MCp}^?[\text{?}]\dots \rightarrow \text{Tpn}[n]\text{MCp}^?[\text{?}]\dots$	$2k_{\text{pT2}}$	0.4
$\text{Tp}[_]\text{MCp}^?[\text{?}]\dots \rightarrow \text{Tpp}[_]\text{MCp}^?[\text{?}]\dots$	k_{pT2}	0.2
$\text{Tpp}[Z]\text{MCn}^?[\text{?}]\dots \rightarrow \text{Tpp}[Zp]\text{MCn}^?[\text{?}]\dots$	k_{ZZp1}	0.04
$\text{Tpp}[Z]\text{MCp}^?[\text{?}]\dots \rightarrow \text{Tpp}[Zp]\text{MCp}^?[\text{?}]\dots$	k_{ZZp2}	0.1
$\text{Tpp}[Zp]\text{MC}^n[\text{Shp1P}]\dots \rightarrow \text{Tpp}[Z]\text{MC}^n[\text{Shp1P}]\dots$	K_{ZpZ2}	150

$Z+Tpp[n]... \rightarrow Tpp[Z]...$	k_Z	0.000005
$Zp+Tpp[n]... \rightarrow Tpp[Zp]$	k_Z	0.000005
$...Zp... \rightarrow ...Z...$	k_{ZpZ1}	0.001

$Shp1+T??[?]MCn?[?]... \rightarrow Shp1P+T??[?]MCn?[?]...$	$k_{ShpAct1}$	0.001
$Shp1+T??[?]MCp?[?]... \rightarrow Shp1P+T??[?]MCp?[?]...$	$k_{ShpAct2}$	0.0000005
$Shp1P+...Cp?[?]... \rightarrow Shp1P+...Cn?[?]...$	$k_{Cdeact3}$	0
$Shp1P+Tpp[Zp]... \rightarrow Shp1P+Tpp[Z]...$	k_{ZpZ3}	0
$Shp1P \rightarrow Shp1$	k_{dpShp}	0.0000005
$Shp1P+T??[?]MC?n[n]... \rightarrow T??[?]MC?n[Shp1P]...$	k_{Shp}	0.004
$Shp1P+...Zp... \rightarrow Shp1P+...Z...$	K_{ZpZ3}	0

$Erk+Zp \rightarrow ErkP+Zp$	k_{ErkAct}	0.00048
$Erk+Tpp[Zp]... \rightarrow ErkP+Tpp[Zp]...$	k_{ErkAct}	0.00048
$ErkP+T??[?]MC?n[n]... \rightarrow ErkP+T??[?]MC?p[n]...$	k_{Cprot}	50
$ErkP \rightarrow Erk$	k_{dpErk}	1.5