

Table S3 Initial conditions

p53 oscillation system

$$p53(0)=0.0001, Mdm2(0)=0.5875e-4, II(0)=0.0, Deg(0)=0.0556$$

G2/M phase cell cycle arrest

$$\begin{aligned}
& Chk1p(0)=2.5e-7, \quad Chk1(0)=0.24999975, \quad transducer(0)=0.05, \quad iMPF(0)=0.25e-6, \\
& aMPF(0)=0.25e-8, \quad p21(0)=0.0, \quad p21:aMPF(0)=0.0, \quad Wee1p(0)=0.0, \quad iCdc25(0)=0.25e-6, \\
& iCdc25Ps216(0)=0.5e-5, \quad iCdc25P:14_3_3(0)=0.0075, \quad aCdc25(0)=0.25e-6, \\
& aCdc25Ps216(0)=0.0, \quad 14-3-3(0)=0.5, \quad Wee1(0)=0.00025
\end{aligned}$$

Apoptosis induction system

$\text{Apaf_I}(0)=0.004$, $\text{Cyt}_C:\text{Apaf_I}(0)=0.0$, $\text{apoptosome}(0)=0.0$, $\text{apoptosome:procaspase9}(0)=0.0$,
 $\text{apoptosome:procaspase9}_2(0)=0.0$, $\text{apoptosome:caspase9}_2(0)=0.0$,
 $\text{apoptosome:caspase9}(0)=0.0$, $\text{caspase9}(0)=0.0$, $\text{procaspase9}(0)=0.004$, $\text{IAP}(0)=0.004$,
 $\text{caspase9:IAP}(0)=0.0$, $\text{apoptosome:caspase9:IAP}(0)=0.0$, $\text{apoptosome:caspase9}_2:\text{IAP}(0)=0.0$,
 $\text{caspase3:IAP}(0)=0.0$, $\text{procaspase3}(0)=0.004$, $\text{caspase9:procaspase3}(0)=0.0$,
 $\text{apoptosome:caspase9}_2:\text{procaspase3}(0)=0.0$, $\text{caspase3}(0)=0.00001$, $\text{caspase8}(0)=0.0001$,
 $\text{Bid}(0)=0.004$, $\text{caspase8:Bid}(0)=0.0$, $\text{Bcl_2}(0)=0.004$, $\text{caspase3:Bid}(0)=0.0$,
 $\text{caspase3:Bcl_2}(0)=0.0$, $\text{Bax}(0)=0.004$, $\text{tBid}(0)=0.0$, $\text{tBid:Bax}(0)=0.0$, $\text{Cyt}_{Cmito}(0)=0.004$,
 $\text{Bax}_2(0)=0.0$, $\text{tBid}_{mito}(0)=0.0$, $\text{Cyt}_C(0)=0.0$, $p21:\text{procaspase3}(0)=0.0$