VAR  
  
PI3K = 0 1 ;  
MTORC2 = 0 1 ;  
AKT = 0 1 ;  
MTORC1 = 0 1 ;  
FOXO = 0 1 ;  
PTEN = 0 1 ;  
  
REG  
  
PTEN [(PTEN<1)]=> PI3K ;  
MTORC1 [(MTORC1<1)]=> PI3K ;  
PI3K [(PI3K>=1)]=> MTORC2 AKT ;  
MTORC1 [(MTORC1<1)]=> MTORC2 ;  
FOXO [(FOXO>=1)]=> MTORC2 ;  
MTORC2 [(MTORC2>=1)]=> AKT ;  
AKT [(AKT>=1)]=> MTORC1 ;  
FOXO [(FOXO<1)]=> MTORC1 ;  
AKT [(AKT<1)]=> FOXO ;  
MTORC1 [(MTORC1>=1)]=> FOXO ;  
PI3K [(PI3K<1)]=> PTEN ;  
  
PARA  
  
# Parameters for PI3K  
  
K\_PI3K = 0 ;  
K\_PI3K+MTORC1 = 0 1 ;  
K\_PI3K+PTEN = 0 1 ;  
K\_PI3K+MTORC1+PTEN = 1 ;  
  
# Parameters for MTORC2  
  
K\_MTORC2 = 0 ;  
K\_MTORC2+FOXO = 0 1 ;  
K\_MTORC2+MTORC1 = 1 ;  
K\_MTORC2+PI3K = 0 1 ;  
K\_MTORC2+FOXO+MTORC1 = 1 ;  
K\_MTORC2+MTORC1+PI3K = 1 ;  
K\_MTORC2+FOXO+PI3K = 0 1 ;  
K\_MTORC2+FOXO+MTORC1+PI3K = 1 ;  
  
# Parameters for AKT  
  
K\_AKT = 0 ;  
K\_AKT+MTORC2 = 0 ;  
K\_AKT+PI3K = 0 ;  
K\_AKT+MTORC2+PI3K = 1 ;  
  
# Parameters for MTORC1  
  
K\_MTORC1 = 0 ;  
K\_MTORC1+AKT = 0 1 ;  
K\_MTORC1+FOXO = 1 ;  
K\_MTORC1+AKT+FOXO = 1 ;  
  
# Parameters for FOXO  
  
K\_FOXO = 0 ;  
K\_FOXO+AKT = 1 ;  
K\_FOXO+MTORC1 = 0 ;  
K\_FOXO+AKT+MTORC1 = 1 ;  
  
# Parameters for PTEN  
  
K\_PTEN = 0 ;  
K\_PTEN+PI3K = 1 ;  
  
CTL  
  
(((PI3K=0&FOXO=0&MTORC2=0&AKT=0&MTORC1=0&PTEN=0)->(EX(EF(PI3K=0&FOXO=0&MTORC2=0&AKT=0&MTORC1=0))))  
&  
((PTEN=1&FOXO=1&AKT=0&PI3K=1&MTORC1=1&MTORC2=1)->(EF(AG(AKT=1&PTEN=0&FOXO=0&MTORC1=1&MTORC2=1&PI3K=1))))  
&  
((PI3K=1&FOXO=0&AKT=1&MTORC1=1)->(EF(AG(AKT=0&MTORC1=0&FOXO=1)))->(EF(AG(AKT=1&FOXO=0&PTEN=0)))))