```
AKT2_[PI]_i-_PI_[PH] -
IRS_[pY]_ppi-_PI3K_[SH2] -
                   RHEB_[switch1DSYDPTIEN]_ppi-_mTOR_[FATf..2f..3]
RHEB_[switch1]_ppi-_mTOR_[Mheatm..2m..3m..4]
RHEB_[switch2GQDEYSIFPQTYSIDIN]_ppi-_mTOR_[Nheatn..3ton..7]
                                RTK_p-_IRS_[(RTK)]
TSC1_[Cterminus]_ppi+_TSC2_[Nterminus]
TSC2_gap_RHEB_[(G)]
                                           eIF4E_[A001]_ppi+_eIF4G_[A002]
                                      elF4E_[A001]_ppi-_EIF4EBP1_[A001]
                                           elF4E_[A001]_ppi-_elF4G_[A002]
                                    mTOR_[Raptor]_ppi+_Raptor_[mTOR] mitogen_[EGFR]_ppi-_EGFR_[mitogen]
                                                     nk_p-_TSC2_[(Ser1130)]
                                                      nk_p-_TSC2_[(Ser939)] -
nk_p-_TSC2_[(Ser981)] -
                                                     nk_p-_TSC2_[(Thr1462)] -
nn_p-_AKT2_[(S474)] -
nn_p-_AKT2_[(T309)] -
                                                                unk_p-_PI_[(3)] -
unk_p-_PI_[(4)] -
                                                                unk_p-_PI_[(5)]
                                                         unknown1_p+_PI_[(4)] =
unknown2_p+_PI_[(5)] =
                                                             AKT2_[(S474)]-{0}
                                                             AKT2_[(T309)]-{0} -
                                                                   AKT2_[PI]--0 -
                                                           EGFR_[mitogen]--0
                                                       EIF4EBP1_[(Ser65)]-{p} = 
EIF4EBP1_[(Thr37)]-{p} =
                                                       EIF4EBP1_[(Thr46)]-{p}
                                                       \mathsf{EIF4EBP1}\_[(\mathsf{Thr70})] - \{p\}
                                                          EIF4EBP1_[A001]--0
                                                                              GTP -
                                                                IRS_[(RTK)]-{0} -
                                                                    IRS_[pY]--0 -
                                                                            PDK1 -
                                                                 PI3K_[SH2]--0 ·
                                                                      PI_[(3)]-{0} -
                                                                      PI_[(4)]-{0} -
                                                                     PI_[(4)]-{p} -
PI_[(5)]-{0} -
                                                                      PI_[(5)]-{p} -
                                                                     PI [PH]--0 ·
                                                           PPM1G_[(AKT2)]-{p} -
                                                                RHEB_[(G)]-{0} -
                                             RHEB_[switch1DSYDPTIEN]--0 -
                                                            RHEB_[switch1]--0
                                RHEB_[switch2GQDEYSIFPQTYSIDIN]--0
                                           Raptor_[mTOR]--mTOR_[Raptor]
                                     TSC1_[Cterminus]--TSC2_[Nterminus] - TSC2_[(Ser1130)]-{0} -
                                                           TSC2_[(Ser939)]-{0}
                                                         TSC2_[(Ser981)]-{0} -
TSC2_[(Thr1462)]-{0} -
                                                                     [EIF4EBP1]
                                                                          [Raptor] -
[eIF4E] -
                                                                           [eIF4G]
                                                               [mTOR] =
eIF4E_[A001]--0 =
                                                elF4E_[A001]--elF4G_[A002]-0
                                                                        mTORC1
                                                                         mTORC2
                                                         mTOR_[FATf..2f..3]--0
                                             mTOR_[Mheatm..2m..3m..4]--0
                                                  mTOR_[Nheatn..3ton..7]--0
                                                           mitogen_[EGFR]--0 -
                                                                                 nk
                                                                                 nn
                                                                               unk
                                                                       unknown1
                                                                        unknown2 ·
                                                         AKT2_[PI]_i+_PI_[PH] -
                                                   AKT2_p+_PPM1G_[(AKT2)] -
                                                  AKT2_p+_TSC2_[(Ser939)] -
AKT2_p+_TSC2_[(Ser939)] -
AKT2_p+_TSC2_[(Ser981)] -
                                                  AKT2_p+_TSC2_[(Thr1462)] -
GTP_gef_RHEB_[(G)] -
IRS_[pY]_ppi+_PI3K_[SH2] -
                                                     PDK1_p+_AKT2_[(T309)] -
PI3K_p+_PI_[(3)] -
                                            PPM1G_p-_EIF4EBP1_[(Ser65)] -
                                            PPM1G_p-_EIF4EBP1_[(Thr37)] - PPM1G_p-_EIF4EBP1_[(Thr46)] -
                                            PPM1G_p-_EIF4EBP1_[(Thr70)] -
                   RHEB_[switch1DSYDPTIEN]_ppi+_mTOR_[FATf..2f..3] -
RHEB_[switch1]_ppi+_mTOR_[Mheatm..2m..3m..4] -
RHEB_[switch2GQDEYSIFPQTYSIDIN]_ppi+_mTOR_[Nheatn..3ton..7] -
                                RTK_p+_IRS_[(RTK)] -
TSC1_[Cterminus]_ppi-_TSC2_[Nterminus] -
eIF4E_[A001]_ppi+_EIF4EBP1_[A001] -
                                          mTORC1\_p+\_EIF4EBP1\_[(Ser65)] -
                                           mTORC1_p+_EIF4EBP1_[(Thr37)] -
                                          mTORC1_p+_EIF4EBP1_[(Thr46)] -
mTORC1_p+_EIF4EBP1_[(Thr70)] -
mTORC2_p+_AKT2_[(S474)] -
                                    mitogen_[EGFR]_ppi+_EGFR_[mitogen] -
                                                             AKT2_{[(S474)]-\{p\}}
                                                              AKT2_[(T309)]-{p} -
                                                           AKT2_[PI]--PI_[PH] -
                                         EGFR_[mitogen]--mitogen_[EGFR] -
                                                       EIF4EBP1_[(Ser65)]-{0} -
                                                       EIF4EBP1_[(Thr37)]-{0} = EIF4EBP1_[(Thr46)]-{0} =
                                                       EIF4EBP1_[(Thr70)]-{0} -
                                           EIF4EBP1_[A001]--eIF4E_[A001] -
                                                                IRS [(RTK)]-{p} -
                                                        IRS_[pY]--PI3K_[SH2]
                                                                     PI_[(3)]-{p} -
                                                          PPM1G_[(AKT2)]-{0} -
                                                              RHEB_[(G)]-{gtp} -
                        RHEB_[switch1DSYDPTIEN]--mTOR_[FATf..2f..3] -
                            RHEB_[switch1]--mTOR_[Mheatm..2m..3m..4] -
     RHEB_[switch2GQDEYSIFPQTYSIDIN]--mTOR_[Nheatn..3ton..7] -
                                                         Raptor_[mTOR]--0 -
TSC1_[Cterminus]--0 -
                                                          TSC2_[(Ser1130)]-{p} -
                                                           TSC2_[(Ser939)]-{p} -
TSC2_[(Ser981)]-{p} -
                                                          TSC2_[(Thr1462)]-{p} -
                                                         TSC2_[Nterminus]--0 -
                                                                          [EGFR] -
                                                                [activatedEGFR] -
                                                                 [activatedPI3K] -
                                                                        [mitogen] -
                                                             mTOR_[Raptor]--0 -
```