```
AKT2_[PH]_i-_PI_[AKT2] -
IRS_[pYMXM]_ppi-_PI3K_[SH2] -
                                                       PP2A_p-_AKT2_[(Thr309)] · PP5_p-_TSC2_[(Ser1130)] ·
                                           PP5_p__ISCZ_[(Ser1130)] -
PP5_p__TSC2_[(Ser939)] -
PP5_p__TSC2_[(Ser981)] -
PP5_p__TSC2_[(Thr1462)] -
PPM1G_p__EIF4EBP1_[(Ser65)] -
PPM1G_p__EIF4EBP1_[(Thr37)] -
PPM1G_p__EIF4EBP1_[(Thr46)] -
PPM1G_p__EIF4EBP1_[(Thr70)] -
                        PTEN_p-_PI_[(3)]
RHEB_[switch1]_ppi-_mTOR_[MheatFAT]
           RHEB_[switch2]_ppi__mTOR_[MheatNheatFAT] = SAC1M1L_p-_PI_[(4)] = SYNJ2_p-_PI_[(5)] =
                                                       insulin_[IR]_ppi+_IR_[insulin] = insulin_[IR]_ppi-_IR_[insulin] =
                     mTOR_[LBE]_ppi+_mLST8_[WD40repeats] mTOR_[LBE]_ppi-_mLST8_[WD40repeats]
                        mTOR_[RICTOR]_ppi+_RICTOR_[mTOR]
mTOR_[RICTOR]_ppi-_RICTOR_[mTOR]
                                 mTOR_[Raptor]_ppi-_Raptor_[mTOR] -
mTOR_[Raptor]_ppi+_Raptor_[mTOR] -
mTOR_[Raptor]_ppi-_Raptor_[mTOR] -
mTOR_[SIN1]_ppi+_SIN1_[mTOR] -
unk1_p-_PPM1G_[(PPP1R3G)] -
                                                 unk2_p-_S6K1_[(T389)] -

unk2_p-_S6K1_[(T389)] -

unk3_p-_IRS_[(hS307)] -

unk4_p-_IRS_[(hS527)] -

unk5_p-_RICTOR_[(Thr1135)] -

unk6_p-_PRA$40_[(Thr246)] -
                                                    unk7_p-_PRAS40_[(Ser183)] -
unk8_p-_PRAS40_[(Ser221)] -
                                                                unk9_p-_SIN1_[(Thr86)] -
AKT2_[(S474)]-{0} -
                                                                AK12_[(3474]]-(0)

AKT2_[(Thr309)]-{0} -

AKT2_[PH]---0 -

EIF4EBP1_[(Ser65)]-{0} -

EIF4EBP1_[(Thr37)]-{0} -

EIF4EBP1_[(Thr46)]-{0} -
                                                                 EIF4EBP1_[(Thr70)]-{0}
                                                                                                              GTP
                                                                               INPP4B -
IRS_[(hS307)]-{0} -
                                                                                IRS_[(hS527)]-{0}
                                                                         IRS_[(tyrosines)]-{0}
                                                                                IRS_[pYMXM]--0
                                                                IR_[insulin]--0 - IR_[insulin]--0 -
                                                                                     PDK1_[PH]--0 -
PHLPP1 -
                                                                                     PI3K_[SH2]--0 -
                                                                                              PI4K3alpha ·
                                                                                              PIPK1alpha
                                                                                                             PIPP .
                                                                                                PI_[(3)]-{0}
                                                                                              PI_[(4)]-{0} -
PI_[(4)]-{p} -
                                                                                                PI_[(5)]-{0} -
                                                                                         PI_[(5)]-{p} =
PI_[AKT2]--0 =
                                                                                       PI_[PDK1]--0 -
PP2A -
                                                                                                               PP5
                                                             PPM1G_[(PPP1R3G)]-{0} -
                                                                  PRAS40_[(Ser183)]-{0} -
                                                                  PRAS40 [(Ser221)]-{0}
                                                                   PRAS40_[(Thr246)]-{0} -
                                                                                                          PTEN -
                                                                            RHEB_[switch1]--0 -
                                                                RHEB_[switch2]--0 = RICTOR_[(Thr1135)]-{0} =
                                  RICTOR_[mTOR]--0 -
RICTOR_[mTOR]--mTOR_[RICTOR] -
Raptor_[mTOR]--0 -
                                          Raptor_[mTOR]--mTOR_[Raptor] -
S6K1_[(T389)]-01-
                                                                              SAC1M1L -
SIN1_[(Thr86)]-{0} -
                                                  SIN1_[mTOR]--0 -
SIN1_[mTOR]--mTOR_[SIN1] -
                                                                                                          SYNJ2
                                                                      TSC2_[(Ser1130)]-{0} -
TSC2_[(Ser939)]-{0} -
                                                                       TSC2_[(Ser981)]-{0}
TSC2_[(Thr1462)]-{0}
                                                                                            [activatedIR]
                               insulin_[IR]--0 -
mLST8_[WD40repeats]--0 -
mLST8_[WD40repeats]--mTOR_[LBE] -
mTOR_[LBE]--0 -
                                                       mTOR_[MheatFAT]--0 = mTOR_[MheatFAT]--0 =
                                                                         mTOR_[RICTOR]--0 -
                                                                            mTOR [Raptor]--0 -
                                                                                mTOR_[SIN1]--0 -
                                                                                                              unk1 ·
                                                                                                              unk2 -
                                                                                                              unk3 -
unk4 -
                                                                                                              unk6 -
                                                                                                              unk8 -
                                                                                                               unk9 -
                                                                 IRS_[(tyrosines)]-{p} -
IR_p+_IRS_[(tyrosines)] -
                              PRAS40_[TOS]--Raptor_[BindingMotif]
                                                             PRAS40 [protein1433]--0
                                                            protein1433_[PRAS40]--0
                     Raptor_[BindingMotif]_ppi+_PRAS40_[TOS]
protein1433_[PRAS40]_ppi-_PRAS40_[protein1433]
                                                                                     RHEB_[(G)]-{0}
                                                                  TSC2_gap_RHEB_[(G)]
                     TSC1_[Cterminus]--TSC2_[Nterminus]-
TSC1_[Cterminus]-ppi+-TSC2_[Nterminus]-
TSC1_[Cterminus]-ppi+-TSC2_[Nterminus]-
SIN1_[(Thr86)]-{p}-
IRS_[pYMXM]_ppi+_PI3K_[SH2]-
                                                         IRS_[pYMXM]--PI3K_[SH2] •
                                                            PDK1_p+_AKT2_[(Thr309)] -
AKT2_[(Thr309)]-{p} -
                                                            AKT2_[(Thi369)]={p} = AKT2_p+_SIN1_[(Thr86)] = mTOR_p+_AKT2_[(S474)] =
                                                                              AKT2_[(S474)]-{p}
                                              AKT2_p+_PPM1G_[(PPP1R3G)] -
AKT2_p+_PRAS40_[(Thr246)] -
                                                      AKT2_p+_TSC2_[(Ser1130)] -
AKT2_p+_TSC2_[(Ser939)] -
AKT2_p+_TSC2_[(Ser981)] -
AKT2_p+_TSC2_[(Thr1462)] -
                                                            PPM1G_[(PPP1R3G)]-{p} -
PRAS40_[(Thr246)]-{p} -
TSC2_[(Ser1130)]-{p} -
                                                                         TSC2_[(Ser939)]-{p} -
TSC2_[(Ser981)]-{p} -
                     TSC2_[(Thr1462)]-{p} -
GTP_gef_RHEB_[(G)] -
TSC1_[Cterminus]-ppi-_TSC2_[Nterminus] -
                                                                       RHEB_[(G)]-{gtp} -
TSC1_[Cterminus]--0 -
                                                                       TSC2 [Nterminus]--0 -
                        RHEB_[switch1]_ppi+_mTOR_[MheatFAT] -
           RHEB_[switch2]_ppi+_mTOR_[MheatNheatFAT] =
RHEB_[switch1]--mTOR_[MheatFAT] =
                     RHEB_[switch2]—mTOR_[MheatNheatFAT] =
mTOR_p+_PRAS40_[(Ser183)] =
mTOR_p+_PRAS40_[(Ser221)] =
                                                                 PRAS40_[(Ser183)]-{p} -
PRAS40_[(Ser221)]-{p} -
Raptor_[BindingMotif]_ppi-_PRAS40_[TOS] = protein1433_[PRAS40]_ppi+_PRAS40_[protein1433] =
         PRAS40_[TOS]--0 -
PRAS40_[protein1433]--protein1433_[PRAS40] -
                                                Raptor_[BindingMotif]--0 -
mTOR_p+_EIF4EBP1_[(Thr37)] -
mTOR_p+_EIF4EBP1_[(Thr46)] -
                                                            mTOR_p+_S6K1_[(T389)] =
EIF4EBP1_[(Thr37)]-{p} =
                                                                EIF4EBP1_[(Thr46)]-{p} -
S6K1_[(T389)]-{p} -
S6K1_p+_IRS_[(hS307)] -
                                                S6K1_p+_IRS_[(hS527)] -
S6K1_p+_RICTOR_[(Thr1135)] -
                                                mTOR_p+_EIF4EBP1_[(Thr70)] = 
IRS_[(hS307)]-{p} =
                                                                                IRS_{[(hS527)]-\{p\}}
                                               | RICTOR_[(Thr1135)]-{p} - | EIF4EBP1_[(Thr70)]-{p} - | mTOR_p+_EIF4EBP1_[(Ser65)] - | EIF4EBP1_[(Ser65)]-{p} - | EIF4EBP1_[(Ser6
                                                                                                                              t000 t001 t002 t003 t004 t005 t006 t007 t008 t009 t010 t011 t012 t013 t014 t015 t016 t017 t018 t019 t020 t021 t022 t023 t024 t025 t026 t027 t028 t029 t030 t031 t032 t033 t034 t035 t036 t037 t038 t039
```