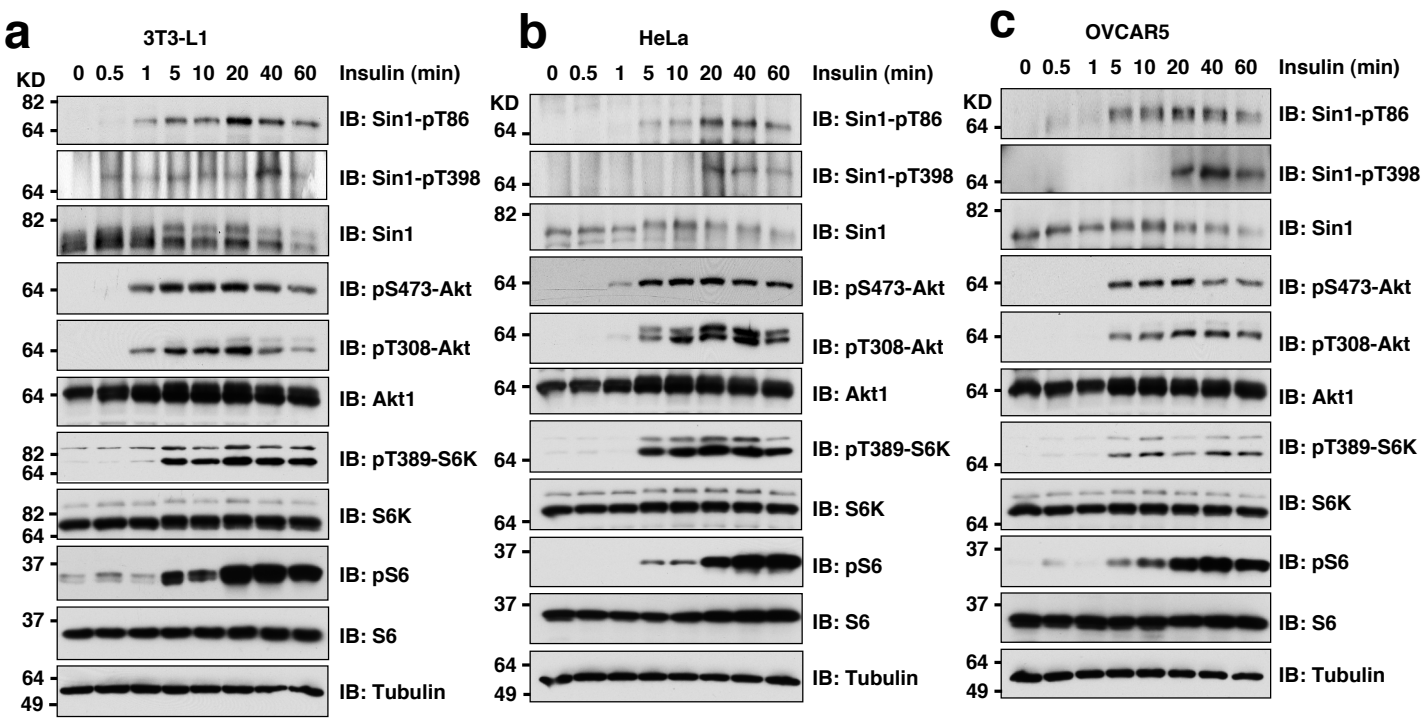
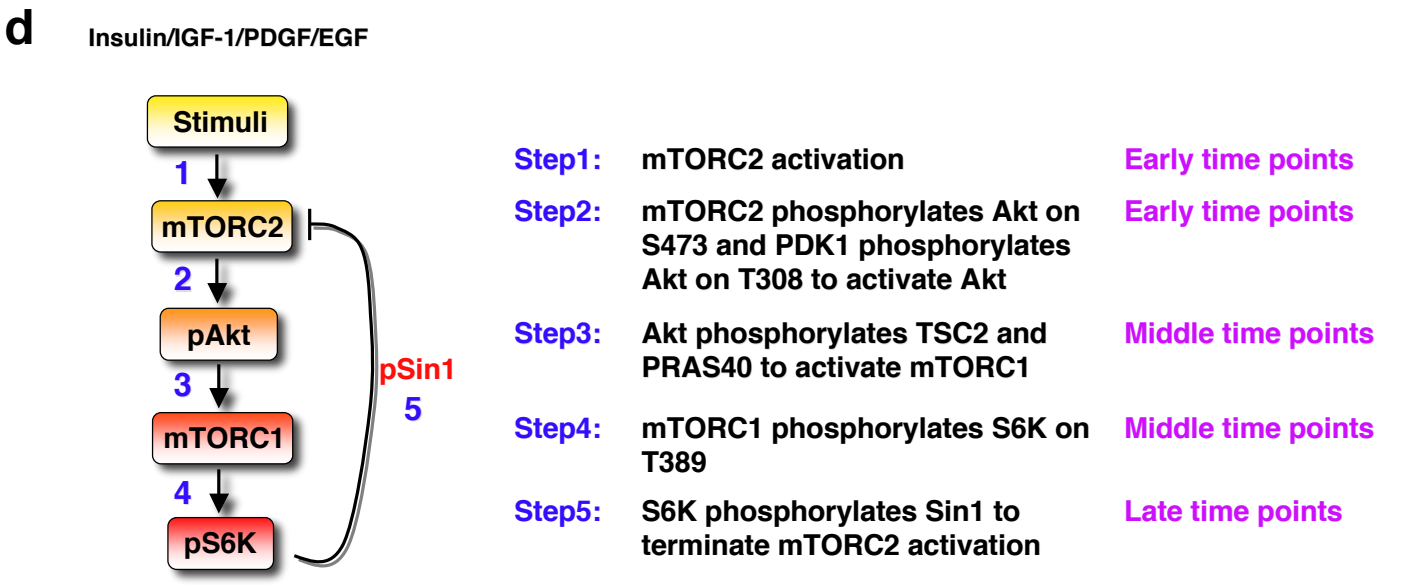
Figure S5


a
3T3-L1
KD
0 0.5 1 5 10 20 40 60
Insulin (min)
82
64
IB: Sin1-pT86
64
IB: Sin1-pT398
82
IB: Sin1
64
IB: pS473-Akt
64
IB: pT308-Akt
64
IB: Akt1
82
64
IB: pT389-S6K
82
64
IB: S6K
37
IB: pS6
37
IB: S6
64
49
IB: Tubulin
b
HeLa
0 0.5 1 5 10 20 40 60
Insulin (min)
KD
64
IB: Sin1-pT86
64
IB: Sin1-pT398
82
IB: Sin1
64
IB: pS473-Akt
64
IB: pT308-Akt
64
IB: Akt1
64
IB: pT389-S6K
64
IB: S6K
37
IB: pS6
37
IB: S6
64
49
IB: Tubulin
c
OVCAR5
0 0.5 1 5 10 20 40 60
Insulin (min)
KD
64
IB: Sin1-pT86
64
IB: Sin1-pT398
82
IB: Sin1
64
IB: pS473-Akt
64
IB: pT308-Akt
64
IB: Akt1
64
IB: pT389-S6K
64
IB: S6K
37
IB: pS6
37
IB: S6
64
49
IB: Tubulin


d
Insulin/IGF-1/PDGF/EGF
Stimuli
1
mTORC2
2
pAkt
3
mTORC1
4
pS6K
pSin1
5
Step1: mTORC2 activation
Early time points
Step2: mTORC2 phosphorylates Akt on S473 and PDK1 phosphorylates Akt on T308 to activate Akt
Early time points
Step3: Akt phosphorylates TSC2 and PRAS40 to activate mTORC1
Middle time points
Step4: mTORC1 phosphorylates S6K on T389
Middle time points
Step5: S6K phosphorylates Sin1 to terminate mTORC2 activation
Late time points