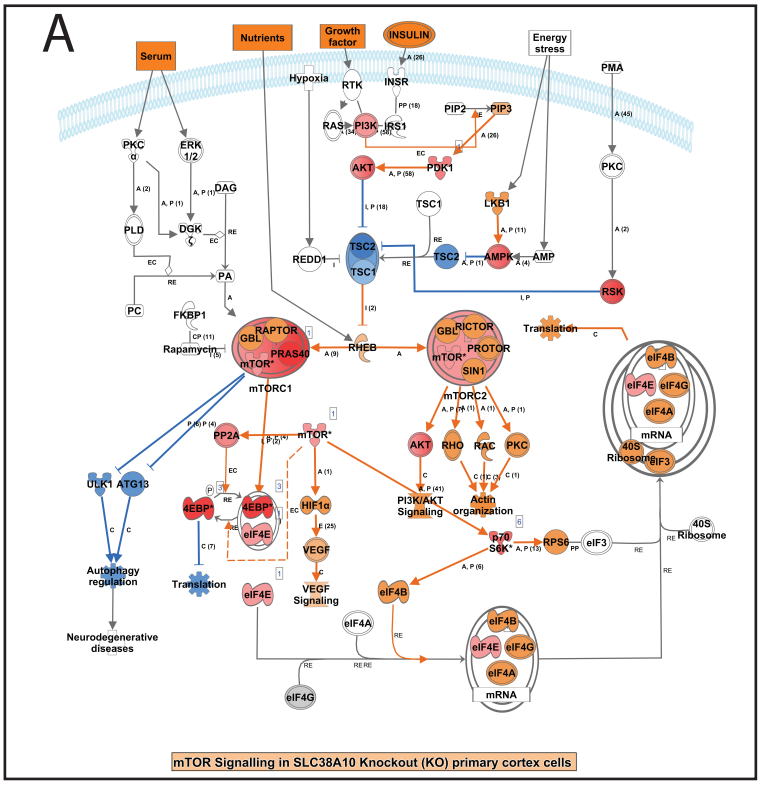
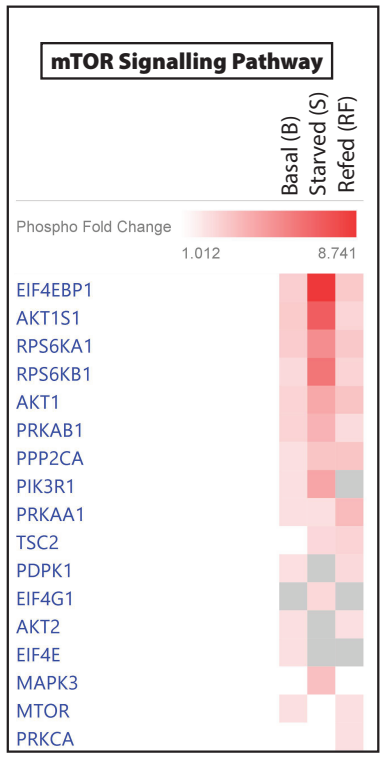
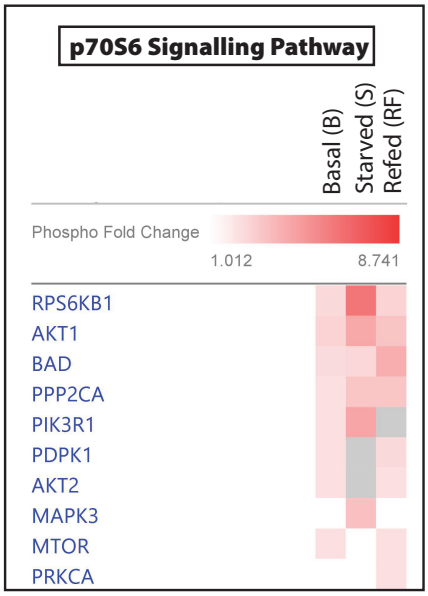
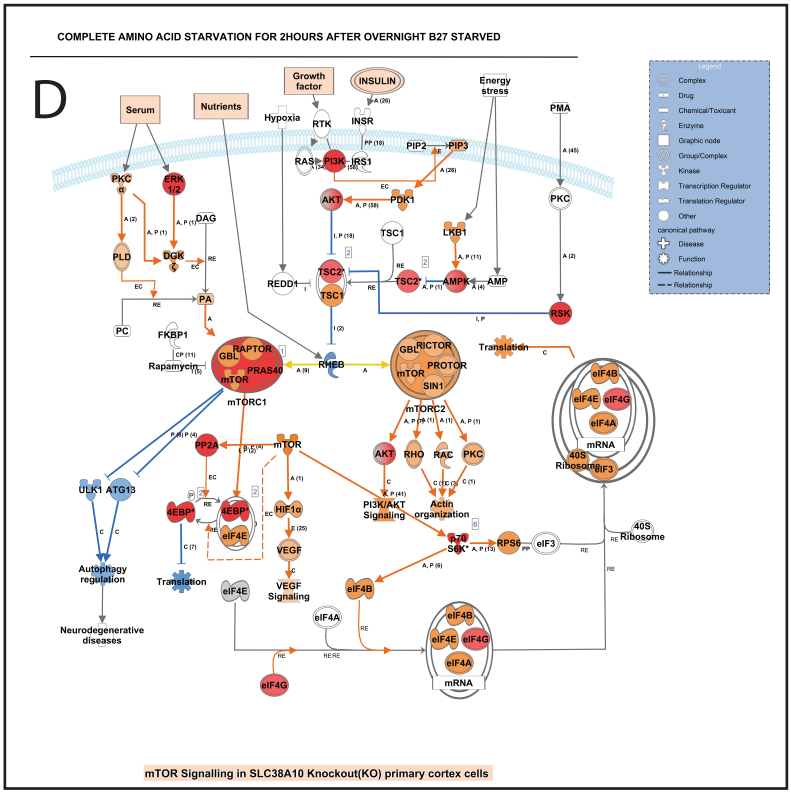
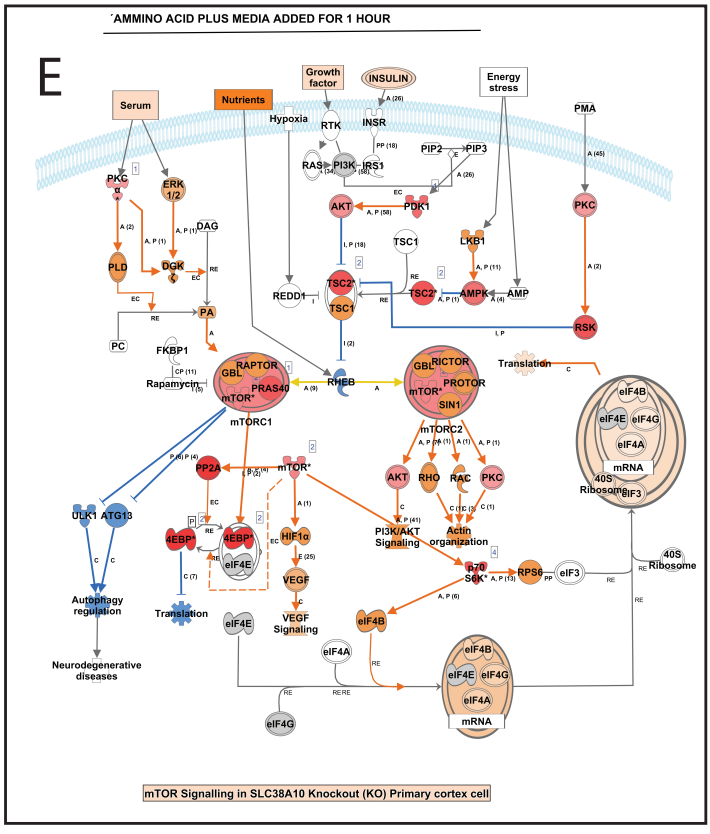
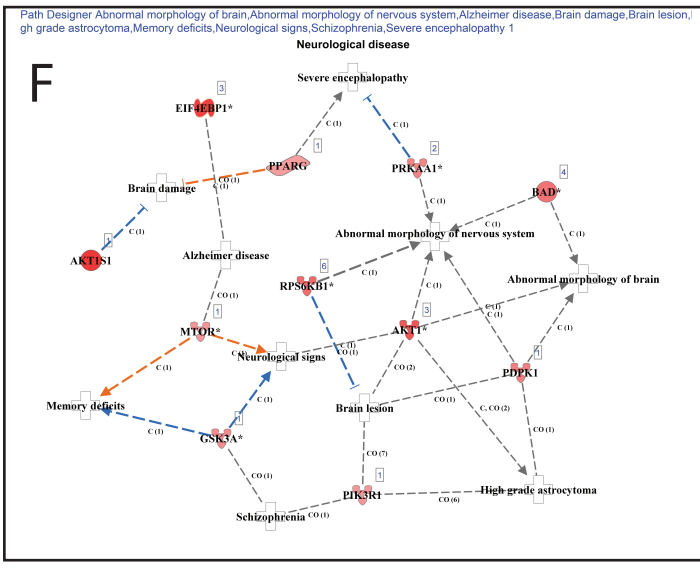

A
Serum
Nutrients
Growth factor
INSULIN
Energy stress
Hypoxia
RTK
INSR
PMA
PIP2
PIP3
RAS
PI3K
IRS1
PKC α
ERK 1/2
AKT
PDK1
DAG
PLD
DGK ζ
TSC1
LKB1
REDD1
TSC2
AMPK
AMP
RSK
PA
PC
FKBP1
Rapamycin
RAPTOR
GBL
PRAS40
mTOR*
RHEB
RICTOR
PROTOR
SIN1
mTORC1
mTORC2
Translation
eIF4B
eIF4E
eIF4G
eIF4A
mRNA
40S Ribosome
eIF3
PP2A
RHO
RAC
PKC
ULK1 ATG13
4EBP1
HIF1α
VEGF
PI3K/AKT Signaling
Actin organization
p70 S6K*
RPS6
Autophagy regulation
Neurodegenerative diseases
VEGF Signaling
mTOR Signalling in SLC38A10 Knockout (KO) primary cortex cells


B
mTOR Signalling Pathway
Basal (B)
Starved (S)
Refed (RF)
Phospho Fold Change
1.012
8.741
EIF4EBP1
AKT1S1
RPS6KA1
RPS6KB1
AKT1
PRKAB1
PPP2CA
PIK3R1
PRKAA1
TSC2
PDPK1
EIF4G1
AKT2
EIF4E
MAPK3
MTOR
PRKCA


C
p70S6 Signalling Pathway
Basal (B)
Starved (S)
Refed (RF)
Phospho Fold Change
1.012
8.741
RPS6KB1
AKT1
BAD
PPP2CA
PIK3R1
PDPK1
AKT2
MAPK3
MTOR
PRKCA


COMPLETE AMINO ACID STARVATION FOR 2HOURS AFTER OVERNIGHT B27 STARVED
D
Serum
Nutrients
Growth factor
INSULIN
Energy stress
Hypoxia
RTK
INSR
PMA
PIP2
PIP3
RAS
PI3K
IRS1
PKC α
ERK 1/2
AKT
PDK1
DAG
PLD
DGK ζ
TSC1
LKB1
REDD1
TSC2
AMPK
AMP
RSK
PA
PC
FKBP1
Rapamycin
RAPTOR
GBL
PRAS40
mTOR*
RHEB
RICTOR
PROTOR
SIN1
mTORC1
mTORC2
Translation
eIF4B
eIF4E
eIF4G
eIF4A
mRNA
40S Ribosome
eIF3
PP2A
RHO
RAC
PKC
ULK1 ATG13
4EBP1
HIF1α
VEGF
PI3K/AKT Signaling
Actin organization
p70 S6K*
RPS6
Autophagy regulation
Neurodegenerative diseases
VEGF Signaling
Complex
Drug
Chemical/Toxicant
Enzyme
Graphic node
Group/Complex
Kinase
Transcription Regulator
Translation Regulator
Other
canonical pathway
Disease
Function
Relationship
Relationship
mTOR Signalling in SLC38A10 Knockout(KO) primary cortex cells


´AMMINO ACID PLUS MEDIA ADDED FOR 1 HOUR
E
Serum
Nutrients
Growth factor
INSULIN
Energy stress
Hypoxia
RTK
INSR
PMA
PIP2
PIP3
RAS
PI3K
IRS1
PKC α
ERK 1/2
AKT
PDK1
DAG
PLD
DGK ζ
TSC1
LKB1
REDD1
TSC2
AMPK
AMP
RSK
PA
PC
FKBP1
Rapamycin
RAPTOR
GBL
PRAS40
mTOR*
RHEB
RICTOR
PROTOR
SIN1
mTORC1
mTORC2
Translation
eIF4B
eIF4E
eIF4G
eIF4A
mRNA
40S Ribosome
eIF3
PP2A
RHO
RAC
PKC
ULK1 ATG13
4EBP1
HIF1α
VEGF
PI3K/AKT Signaling
Actin organization
p70 S6K*
RPS6
Autophagy regulation
Neurodegenerative diseases
VEGF Signaling
mTOR Signalling in SLC38A10 Knockout (KO) Primary cortex cell


Path Designer Abnormal morphology of brain,Abnormal morphology of nervous system,Alzheimer disease,Brain damage,Brain lesion,
gh grade astrocytoma,Memory deficits,Neurological signs,Schizophrenia,Severe encephalopathy 1
Neurological disease
F
Severe encephalopathy
EIF4EBP1*
PPARG
PRKAA1*
Brain damage
BAD*
Abnormal morphology of nervous system
AKT1S1
Alzheimer disease
RPS6KB1*
Abnormal morphology of brain
MTOR*
AKT1*
Neurological signs
PDPK1
Memory deficits
Brain lesion
GSK3A*
PIK3R1
High grade astrocytoma
Schizophrenia