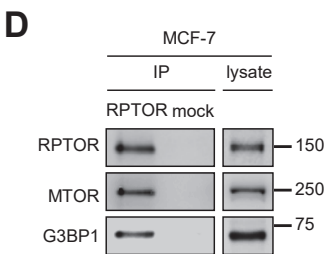
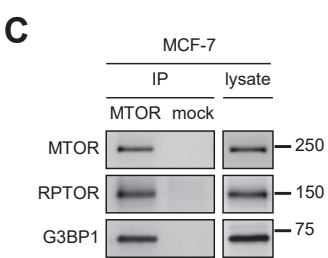


E

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ACGCTAAATGATGGTGTGGTGTAGTCCAGGTGATGGGGCTTCTCTTAACAACAACAGGCCTTTGAGGAGATTCATGCAAACGTTT
GTCTTGTCTCTGAGGGGTCTGTTGCAATAAATCTATGTTCAAAATGATATCTTCAGATACCAAGATGAGGTCTTTGGTGGG
TTTGTCACTGAGCCTCAGGAGGAGTCTGAAGAAGAAGTAGAGGAACCTGAAGAAGACAGCAAAACACCTGAGGTGGTACCTGAT
GATCTGGAAGTCTTCTATGATCAGGCAGTGTGCAGTAATGACATGGAAGAACATTTAGAGGAGCCTGTTGCTGAACCAGAGCCT
GATCCTGAACCAGAACCAGAAACAAGAACCTGTATCTGAAATCCAAAGGAAAGAGCCTGAGCCAGTATTAGAAGAACTGCCCT
GAGGATGCTCAGAAGAGTCTTCTTCCAGCACCTGCAGACATAGCTCAGACAGTAAGGAAAGATGAGGACATTTTCTTGGGCA
TCTGTGACCAGTAAGAATCTTCCACCAGTGGAGCTGTTCAGTACTGGGATACCACCTCATGTTGTTAAAGTACCAGCTTCA
CAGCCCGTCCAGAGTCTAAGCCTGAATCTCAGATTCACCACAAAGACCTCAGCGGATCAAAGAGTGGCAGAACCAACGAATA
AATATTCTCCCAAGGGGACCCAGACCAATCCGTGAGGCTGGTGGAGCAGGTGACATTTGAACCCGAAGAATGGTGGAGCAC
CCTGACAGTACCAACTCTTCAATGGCAACCTGCCTCATGAAGTGGACAAATCAGAGCTAAAGATTTCTTCAAAGTTATGGA
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GGCCAGCCAGCAGATAATCGCCTTCGGGACCTGGAGGCCCTCGAGGTGGGCTGGTGGTGAATGAGAGGCCCTCCCGTGA
GGCATGTTGCAGAAACCAGGATTTGGAGTGGGAAGGGGGCTTGCACCAGGCAGTGA



siG3BP1 (pool) **GTGGTGGAGTTGCGCATTAGACATAGCTCAGACAGTAGAAGCGCAGCCGACGAGATACCGAGAACACGAATAAAT**

shG3BP1 #1 **CGTCTGAATGTCGAAGAGA**

shG3BP1 #2 **AGGAAAGTGATGTCACAAA**

sgG3BP1 **AAGCCAGCAGATGCAGTCTA**

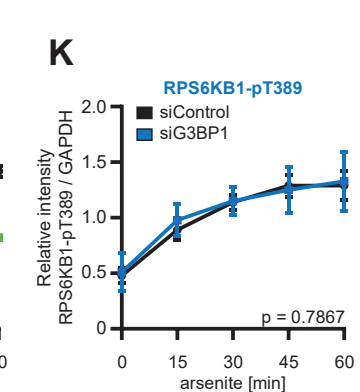
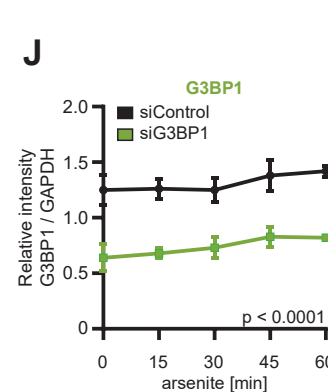
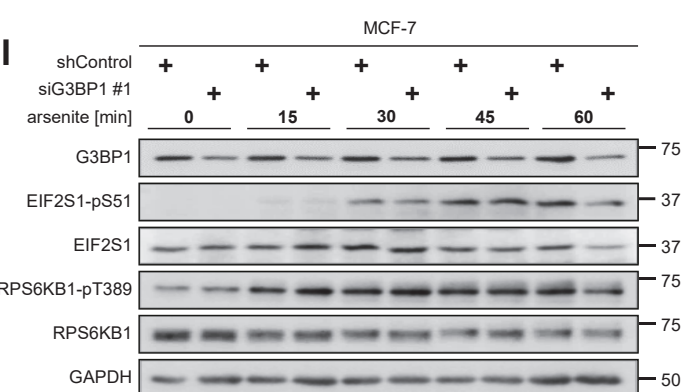
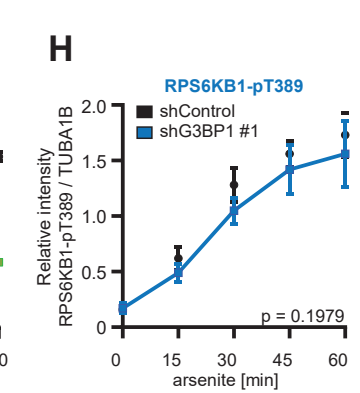
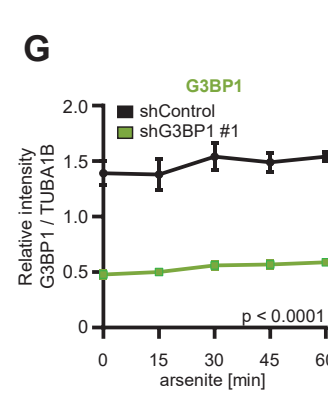
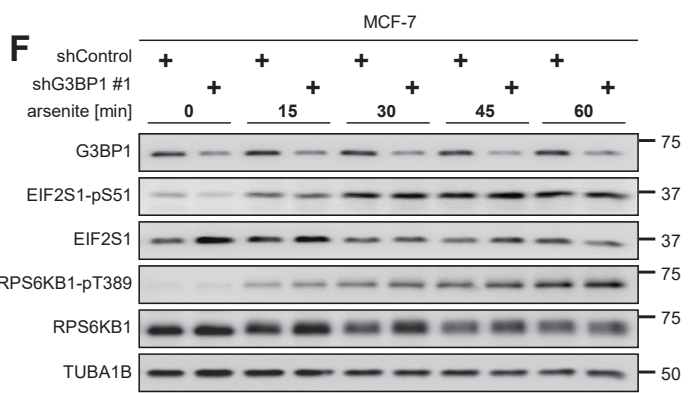


Figure S1

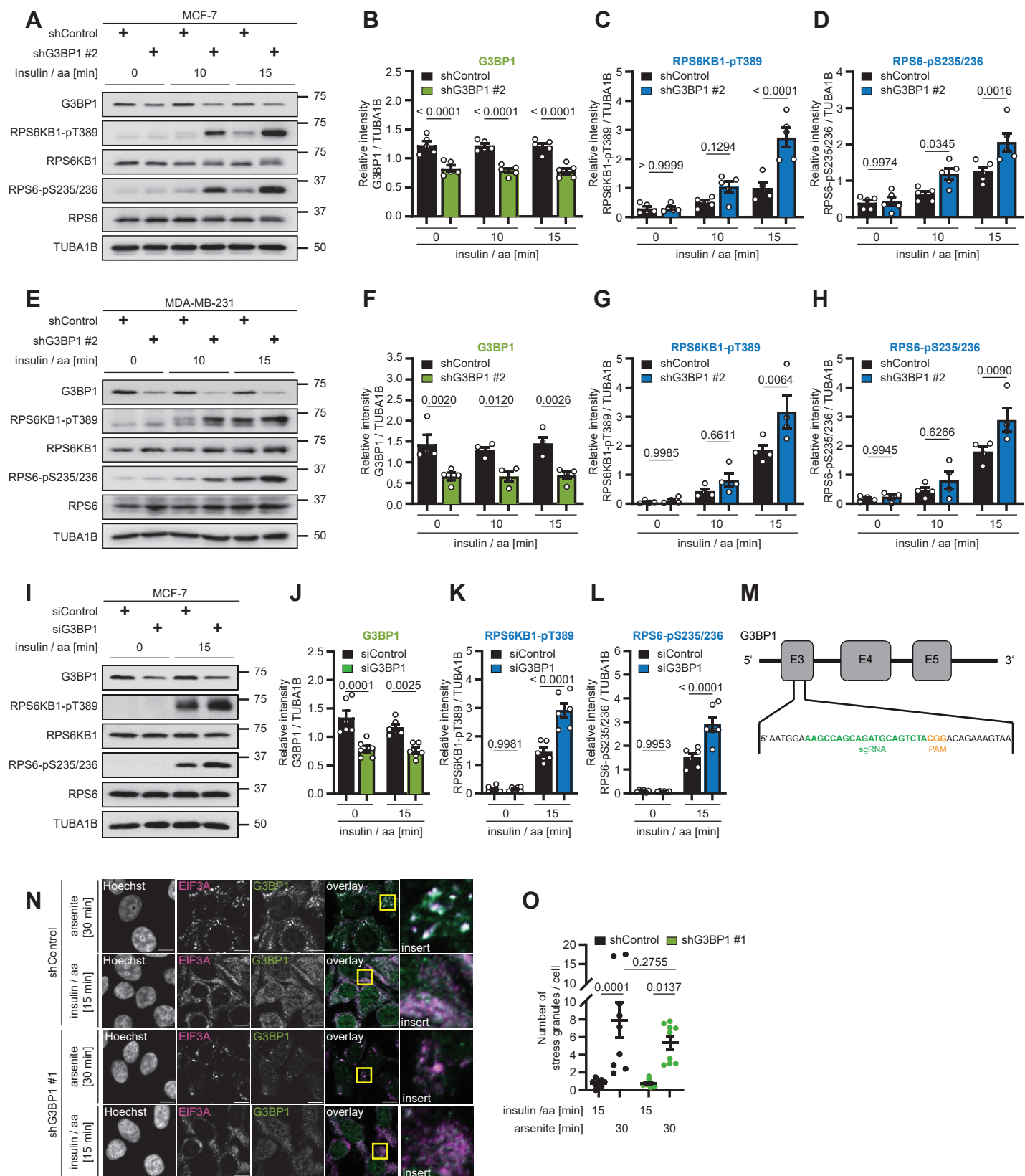


Figure S2

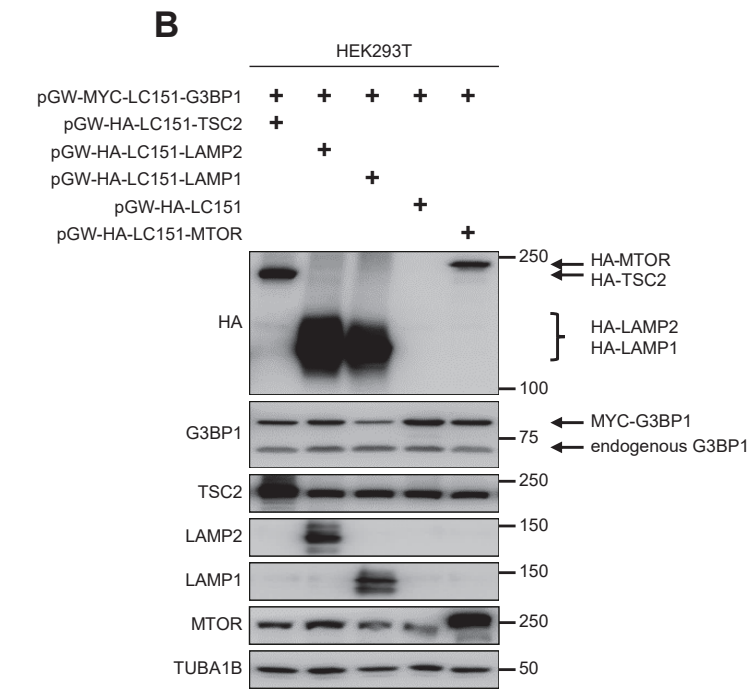
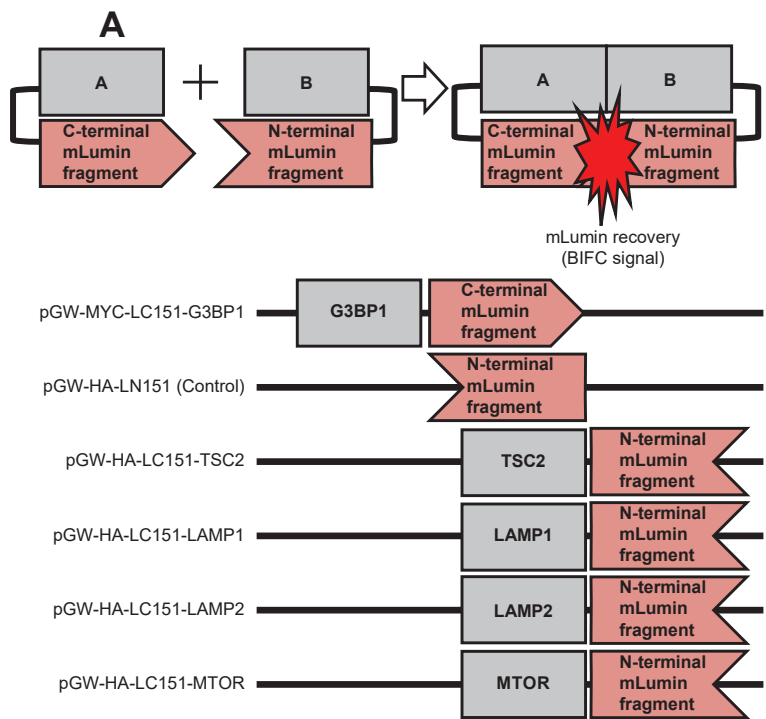
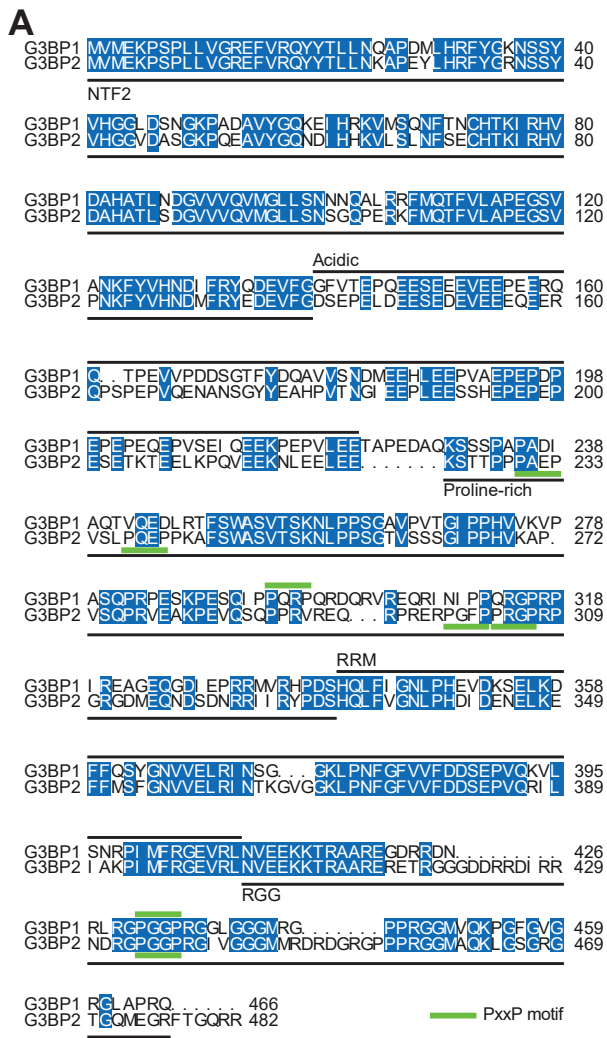


Figure S3



B

Domain	G3BP1 (amino acids)	G3BP2 (amino acids)	Identity	Similarity	Gaps
Full length	1-466	1-482	63.9 %	74.4 %	7.7 %
NTF2	1-139	1-139	82.0 %	92.8 %	0.0 %
Acidic	140-221	140-223	45.3 %	62.8 %	7.0 %
Proline-rich	229-339	224-330	58.6 %	65.5 %	3.6 %
RRM	340-408	331-402	76.4 %	91.7 %	4.2 %
RGG	409-466	403-482	58.1 %	60.8 %	21.6 %

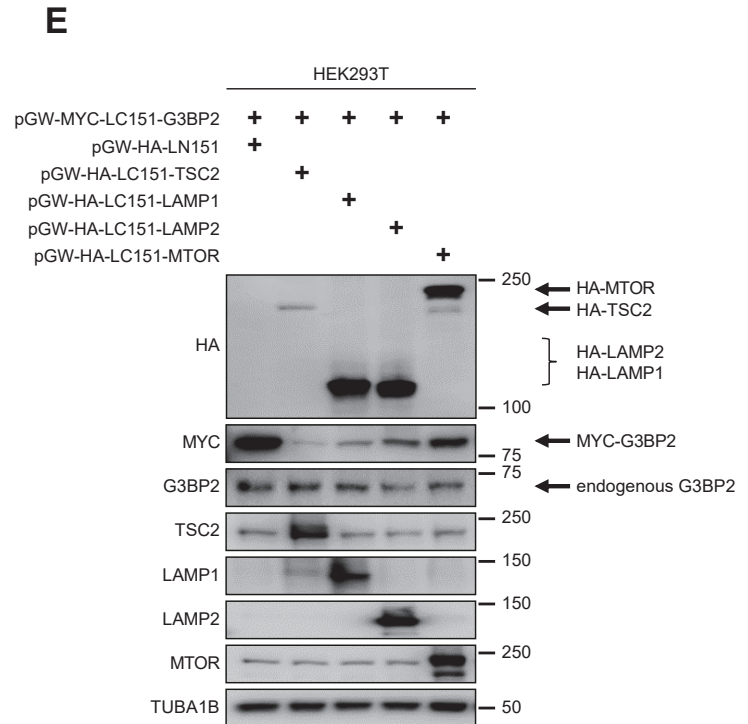
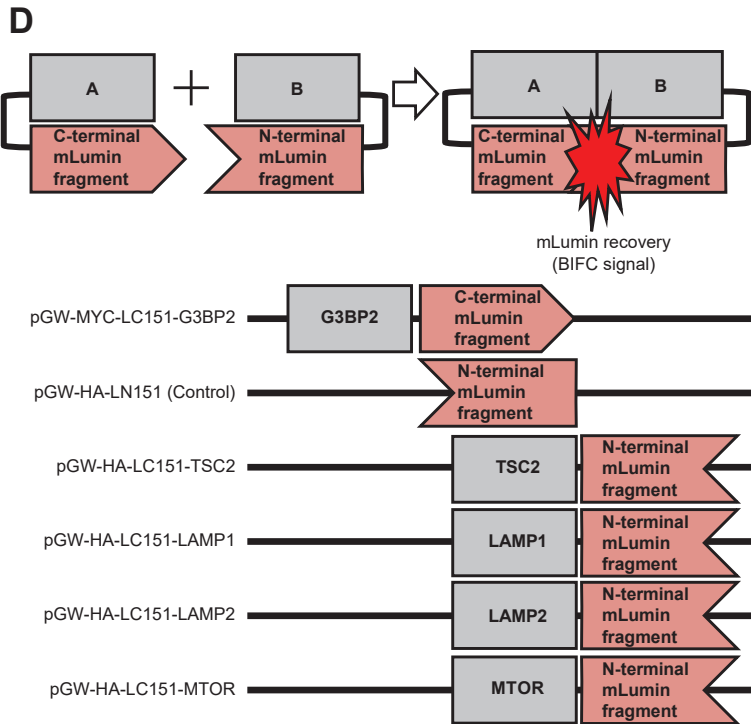
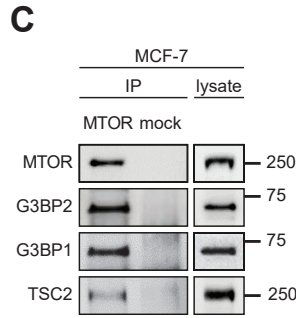


Figure S4

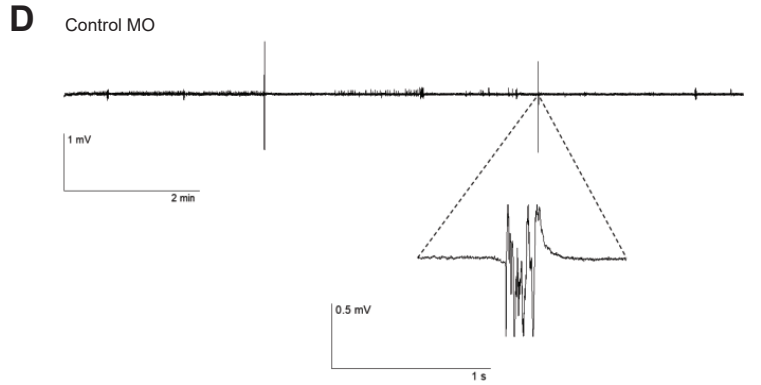
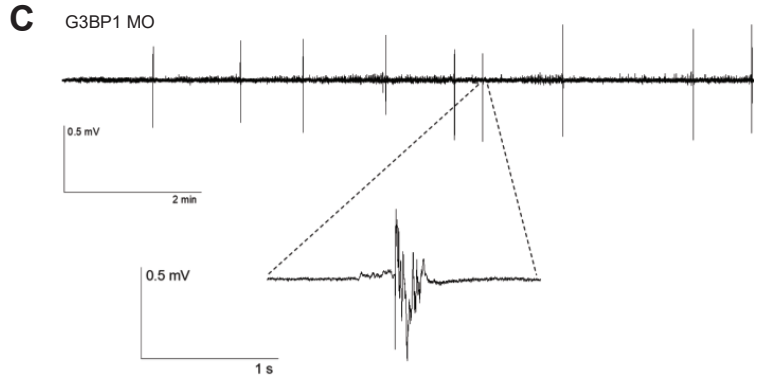
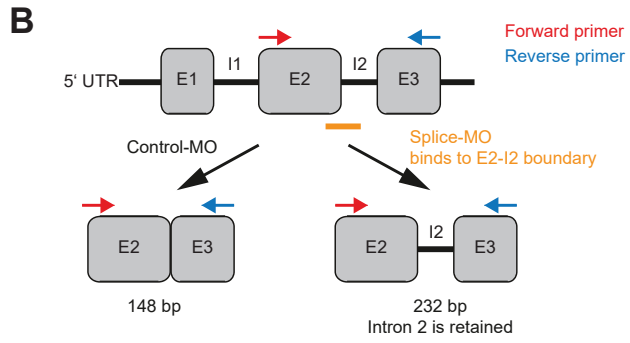
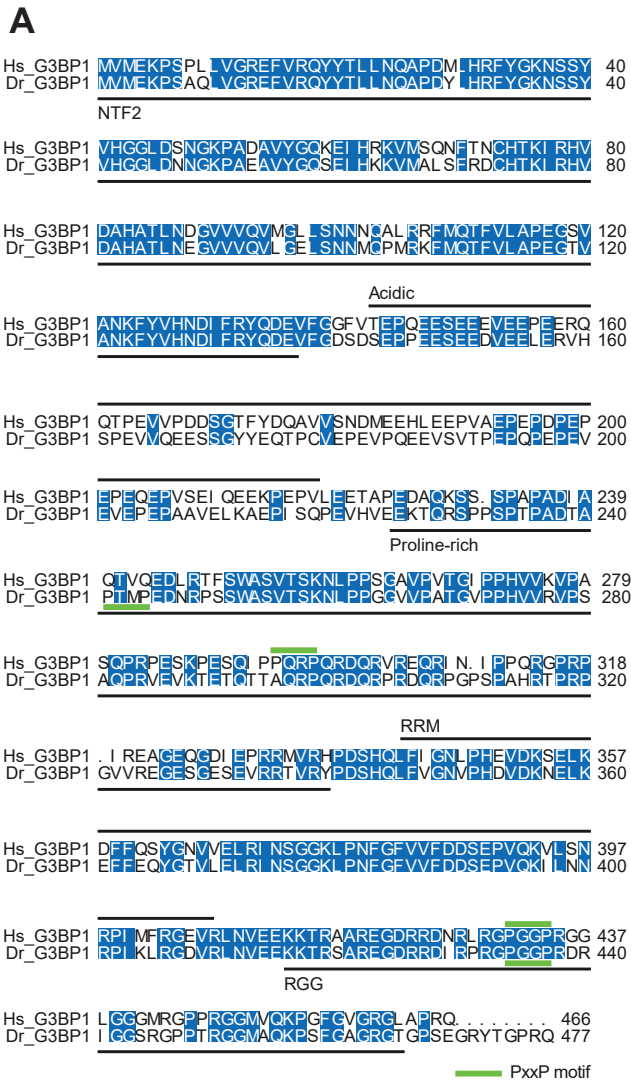


Figure S5

STAR METHODS

Key Resources Table

REAGENT or RESOURCE	SOURCE	IDENTIFIER
Antibodies		
EIF2S1	dilution in IB 1:1000	Cell Signaling Cat# 9722; RRID: AB_2230924
EIF2S1-pS51	dilution in IB 1:1000	Cell Signaling Cat# 9721; RRID: AB_330951
EIF3A	dilution in IB 1:10000; dilution in IF 1:1000	Cell Signaling Cat# 3411; RRID: AB_2096523
FLAG	used in IP at 1ug/mL	Sigma-Aldrich Cat# F3165; RRID: AB_259529
G3BP1	dilution in IB 1:1000	Santa Cruz Cat# sc-365338; RRID: AB_10846950
G3BP1	dilution in IB 1:1000; dilution in IF 1:200; dilution in PLA 1:2000	Santa Cruz Cat# sc-81940; RRID: AB_1123055
G3BP2	dilution in IB 1:1000	Bethyl Cat# A302-040A; RRID: AB_1576545
GAPDH	dilution in IB 1:10000	Abcam Cat# ab37187; RRID: AB_732651
GAPDH (zebrafish)	dilution in IB 1:1000	Sigma-Aldrich Cat# SAB2701826
GFP	dilution in IB 1:1000; used in IP at 1 µg/mL	Roche Cat# 11814460001; RRID: AB_390913
Goat anti-Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 488	dilution in IF 1:500	Invitrogen Cat# A-11001; RRID: AB_2534069
Goat anti-Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 568	dilution in IF 1:500	Invitrogen Cat# A-11011; RRID: AB_143157
Goat anti-Mouse IgG (H+L) cross-adsorbed secondary, Alexa Fluor 555	dilution in IF 1:1000	Thermo Fisher Scientific Cat# A-21422; RRID: AB_2535844

Goat anti-Rabbit IgG (H+L) cross-adsorbed secondary, Alexa Fluor 488	dilution in IF 1:1000	Thermo Fisher Scientific	Cat# A-11008; RRID: AB_143165
Goat anti-Mouse IgG (H+L) Secondary Antibody, HRP-coupled	dilution in IB 1:4000	Thermo Fisher Scientific	Cat# 31430; RRID: AB_228307
Goat anti-Rabbit IgG (H+L) Secondary Antibody, HRP-coupled	dilution in IB 1:4000	Thermo Fisher Scientific	Cat# 31460; RRID: AB_228341
Goat anti-Rabbit IgG (H+L) Secondary Antibody, Dylight 800 (zebrafish)	dilution in IB 1:10000	Thermo Fisher Scientific	Cat# SA5-35571; RRID: AB_2556775
HA	dilution in IB 1:1000	Roche	Cat# 11867423001; RRID: AB_390918
Histone H3 (H3C1)	dilution in IB 1:1000	Bethyl	Cat# A300-822A; RRID: AB_597872
HSP90 (CDC37)	dilution in IB 1:10000	Cell Signaling	Cat# 4877; RRID: AB_2233307
LMNA A/C	dilution in IB 1:10000	Cell Signaling	Cat# 2032; RRID: AB_2136278
LAMP1	dilution for IB 1:1000; dilution for PLA 1:200	Cell Signaling	Cat# 9091; RRID: AB_2687579
LAMP1	dilution in IF 1:1000	Developmental Studies Hybridoma Bank	Cat# H4A3; RRID: AB_2296838
LAMP2	dilution for IB 1:1000; dilution in IF 1:200	Santa Cruz	Cat# sc-18822; RRID: AB_626858
LAMP2	dilution for PLA 1:200	Developmental Studies Hybridoma Bank	Cat# H4B4, RRID: AB_2134755
MTOR	dilution in IB 1:1000	Cell Signaling	Cat# 2983; RRID: AB_2105622
MTOR epitope maps to residues 221 and 261 of human mTOR	used in IP at 7.5 µg/mL	Monoclonal Antibody Core Unit. Helmholtz Zentrum München, Germany	TQREP-3G6
Mock antibody mouse	used in IP at 7.5 µg/mL	Santa Cruz	Cat# sc-2025; RRID: AB_737182

Mock antibody rabbit	used in IP at 7.5 µg/mL	Bethyl	Cat# P120-101; RRID: AB_479829
	used in IP from rat brains at 4 µg/mL	Sigma-Aldrich	Cat# I5006; RRID: AB_1163659
Mock antibody rat	used in IP at 7.5 µg/mL	Monoclonal Antibody Core Unit. Helmholtz Zentrum München, Germany	RmC3-7H8
MYC-tag	dilution in IB 1:1000	Cell Signaling	Cat# 2276; RRID: AB_331783
RPS6KB1	dilution in IB 1:1000	Cell Signaling	Cat# 2708; RRID: AB_390722
RPS6KB1-pT389	dilution in IB 1:1000	Cell Signaling	Cat# 9206; RRID: AB_2285392
RPS6KB1-pT389	dilution in IB 1:1000	Cell Signaling	Cat# 9205; RRID: AB_330944
RAB5A	dilution in IB 1:1000	Cell Signaling	Cat# 3547; RRID: AB_2300649
RAB7A	dilution in IB 1:1000	Cell Signaling	Cat# 9367; RRID: AB_1904103
RPTOR	dilution in IB 1:1000	Cell Signaling	Cat# 2280; RRID: AB_561245
RPTOR #1 epitope maps to residues 686 and 704 of human Raptor	used in IP at 7.5 µg/mL	Monoclonal Antibody Core Unit. Helmholtz Zentrum München, Germany	RAP1-20C4
RPTOR #2	used in IP at 7.5 µg/mL	Bethyl	Cat# A300-553A; RRID: AB_2130793
RPS6	dilution for IB 1:1000	Cell Signaling	Cat# 2317; RRID: AB_2238583
RPS6-pS235/236	dilution for IB 1:1000	Cell Signaling	Cat# 4856; RRID: AB_2181037
S6-pS235/236 (zebrafish)	dilution for IB 1:1000	Cell Signaling	Cat# 2211; RRID: AB_331679
4x Sample buffer for TSC1 IP in rat brain tissue	40% glycerol, 2% β-mercaptoethanol, 8% SDS, 240 mM Tris-HCl pH 6.8, and bromophenol blue	N/A	N/A

5x Sample buffer	10% glycerol, 1% β -mercaptoethanol, 1.7% SDS, 62.5 mM Tris-HCl pH 6.8, and bromophenol blue	N/A	N/A
Sample buffer for GFP-IPs	25 mM Tris-HCl pH 6.8; 4% (w/v) SDS; 3% (w/v) DTT; 0.02% (v/v) bromophenol blue	N/A	N/A
TSC1	dilution for IB 1:1000	Cell Signaling	Cat# 4906; RRID: AB_2209790
TSC1 #1	used in IP at 7.5 μ g / mL	Gift from Michael N. Hall, Basel, Switzerland (Molle, 2006). Generated according to van Slegtenhorst et al. (1998).	N/A
TSC1 #2	used in IP at 7.5 μ g / mL	Thermo Fisher Scientific (Invitrogen)	Cat# 37-0400; RRID: AB_2533292
TSC1 #3	dilution for IB 1:1000; used in IP at 4 μ g/mL	Cell Signaling	Cat# 6935; RRID: AB_10860420
TSC2	dilution for IB 1:1000; dilution in IF 1:800; dilution for PLA 1:1600	Cell Signaling	Cat# 4308; RRID: AB_10547134
TSC2 #1	used in IP at 7.5 μ g / mL	Thermo Fisher Scientific (Invitrogen)	Cat# 37-0500; RRID: AB_2533293
TSC2 #2 epitope maps to residues 1535 and 1784 of human TSC2	used in IP at 7.5 μ g / mL	Gift from Michael N. Hall, Basel, Switzerland (Molle, 2006). Generated according to van Slegtenhorst et al. (1998).	N/A
TSC2 #3	used in IP at 7.5 μ g / mL	Abcam	Cat# ab52936; RRID: AB_883283
TUBA1B	dilution for IB 1:10000	Abcam	Cat# ab108629; RRID: AB_10866252
Bacterial and Virus Strains			
DB3.1		Thermo Fisher Scientific	Cat# 11782018 (discontinued)
DH5-alpha		New England Biolabs	Cat# C2987H

Chemicals, Peptides, and Recombinant Proteins		
Aprotin	Sigma-Aldrich	Cat# A1153
Beta-Mercaptoethanol	Gibco	Cat# 21-985-023
Bromophenol Blue	Sigma-Aldrich	Cat# B5525
BSA (bovine serum albumin)	Carl Roth	Cat# 8076.5
CHAPS (3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate hydrate)	Sigma-Aldrich	Cat# 3023
CHAPS (3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate hydrate) (for IPs in rat brain tissue)	Roth	Cat# 1479.3
Complete Protease Inhibitor Cocktail	Sigma-Aldrich	Cat# D27802
DABCO (1,4-diazabicyclo[2.2.2]octane)	Merck	Cat# 11836153001
DMEM (Dulbecco's Modified Eagle's Medium) w: 4.5 g/L Glucose, w/o: L-Glutamine, w: Sodium pyruvate, w: 3.7 g/L NaHCO ₃	PAN	Cat# P04-03600
DMEM (Dulbecco's Modified Eagle's Medium) used for PLA experiments in Figure 3A	Thermo Fisher Scientific	Cat# 41965-039
DMSO (dimethyl sulfoxide)	Sigma-Aldrich	Cat# D2650
Doxycycline	Sigma-Aldrich	Cat# D3447
Duolink™ In Situ Mounting Medium with DAPI	Sigma-Aldrich	Cat# DUO82040
Dynabeads Protein G for Immunoprecipitation	Thermo Fisher Scientific	Cat# 10009D
FBS (fetal bovine serum)	Gibco	Cat# 10270106
FBS (fetal bovine serum)	Sigma-Aldrich	Cat# F9665
Glycerol	Sigma-Aldrich	Cat# G5516
Glycine	Sigma-Aldrich	Cat# G7126
HEPES ((4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid)	Life technologies	Cat# 15630080
HBSS (Hank's Balanced Salt Solution) w/o: Phenol red, w: Ca and Mg, w: 0.35 g/L NaHCO ₃	PAN	Cat# P04-32505
Hoechst 33342 (dilution in IF: 1:100.000)	Invitrogen	Cat# H3570
Insulin	Sigma-Aldrich	Cat# I1882
IGEPAL CA-630 (NP40)	Sigma-Aldrich	Cat# I8896
Imidazole	Sigma-Aldrich	Cat# I0250

KCl (potassium chloride)	Sigma-Aldrich	Cat# P9541
Leupeptin	Sigma-Aldrich	Cat# 103476-89-7
L-glutamine	Gibco	Cat# 25030024
L-analyl-glutamine	Gibco	Cat# 25030081
Methanol	Klinipath	Cat# 4063-9005
MgCl ₂ (magnesium chloride)	Sigma-Aldrich	Cat# M2670
Mowiol 4-88	Carl Roth	Cat# 07131
NaCl (sodium chloride)	Sigma-Aldrich	Cat# S7653
NPG (n-propyl-gallate)	VWR	Cat# EM8.20599.0500
PBS (phosphate-buffered saline)	PAN	Cat# P04-36500
PBS (phosphate-buffered saline) for non-sterile washing	Biochrom	Cat# L182-50
Penicillin/Streptomycin	Gibco	Cat# 15140122
Pepstatin A	Sigma-Aldrich	Cat# 26305-03-3
PhosSTOP™ for IPs in brain tissue	Merck	Cat# 4906837001
Phosphatase Inhibitor Cocktail 2	Sigma-Aldrich	Cat# P5726
Phosphatase Inhibitor Cocktail 3	Sigma-Aldrich	Cat# P0044
Pierce™ 16% Formaldehyde (w/v), Methanol-free	Thermo Fisher Scientific	Cat# 28908
Polyacrylamide	Bio-Rad	Cat# 161-0159
Polybrene	Sigma-Aldrich	Cat# H9268
Prolong Gold antifade reagent with 4',6-Diamidin-2-phenylindol (DAPI)	Thermo Fisher Scientific	Cat# P36935
Protein G sepharose beads	GE	Cat# 17061801
Puromycin	Sigma-Aldrich	Cat# P8833
PVDF (polyvinylidene difluoride) membrane	Millipore	Cat# IPVH00010
Rapamycin	Calbiochem	Cat# 553210
RIPA buffer (zebrafish lysis)	Merck	Cat# R0278
SDS (sodium dodecyl sulfate)	Sigma-Aldrich	Cat# 71725
Sodium deoxycholate	Sigma-Aldrich	Cat# 30970
Sodium fluoride	Sigma-Aldrich	Cat# 7681-49-4

Sodium orthovanadate	Sigma-Aldrich	Cat# 13721-39-6
Sodium pyrophosphate	Sigma-Aldrich	Cat# 13472-36-1
Sucrose	Sigma-Aldrich	Cat# S2395
Transfectin	Biorad	Cat# 1703350
TRIS base (tris(hydroxymethyl)aminomethane)	VWR	Cat# A1086.5000
Triton X-100	Sigma-Aldrich	Cat# 93443
Tryphan Blue	Gibco	Cat# 15250061
Trypsin	Gibco	Cat# 15400054
Tween-20	MP Biomedicals	Cat# 11TWEEN201
Critical Commercial Assays		
Bio-Rad Protein Assay Dye Reagent Concentrate	Bio-Rad	Cat# 500-0006
Duolink In Situ Red Starter Kit Mouse/Rabbit	Sigma-Aldrich	Cat# DUO92008
Duolink® In Situ PLA® Probe Anti-Rabbit PLUS Affinity purified Donkey anti-Rabbit IgG (H+L)	Sigma-Aldrich	Cat# DUO92002
Duolink® In Situ PLA® Probe Anti-Mouse MINUS Affinity purified Donkey anti-Mouse IgG (H+L)	Sigma-Aldrich	Cat# DUO92004
JetPEI	Poly-Plus	Cat# 101-40N
Lipofectamine 3000 Transfection Reagent	Thermo Fisher Scientific	Cat# L3000015
Lipofectamine RNAiMAX Transfection Reagent	Thermo Fisher Scientific	Cat# 13778150
MidiPrepKit NUCLEOBOND XTRA MIDI	Macherey-Nagel	Cat# 740410.50
Pierce BCA protein assay kit	Thermo Fisher Scientific	Cat# 23225
Pierce ECL Western Blotting Substrate	Thermo Fisher Scientific	Cat# 32209
SuperSignal West FEMTO Maximum Sensitivity Substrate	Thermo Fisher Scientific	Cat# 34095
Trans-Lentiviral shRNA Packaging Mix	Dharmacon	Cat# TLP5912
Deposited Data		
Invasive breast cancer (The Cancer Genome Atlas, TCGA, provisional)	www.cbioportal.org	N/A
<i>TSC1</i> RNA expression data	www.kmplot.com	probeID: 209390_at

<i>TSC2</i> RNA expression data	www.kmplot.com	probeID: 215735_s_at
<i>G3BP1</i> RNA expression data	www.kmplot.com	probeID: 225007_at
G3BP1 protein expression data	www.kmplot.com	probeID: Q13283
Experimental Models: Cell Lines		
HEK293T	Thien et al. (2015)	N/A
HEK293- β_2 AR	Lavoie et al. (2002)	N/A
HeLa alpha Kyoto	Thedieck et al. (2007)	N/A
MCF7 ACC115	DSMZ	Cat# ACC115; RRID: CVCL_0031
MCF7 Control	This Paper	N/A
MCF7 G3BP1 KO	This Paper	N/A
MCF7 GFP-LC3	Gift from Joern Dengjel, Fribourg, Switzerland	N/A
MCF7 shControl	This paper	N/A
MCF7 shG3BP1 #1	This paper	N/A
MCF7 shG3BP1 #2	This paper	N/A
MDA-MB-231	ATCC	Cat# HTB-26; RRID: CVCL_0062
MDA-MB-231 TSC Control	This Paper	N/A
MDA-MB-231 TSC2 KO	This Paper	N/A
MDA-MB-231 shControl	This paper	N/A
MDA-MB-231 shG3BP1 #1	This paper	N/A
MDA-MB-231 shG3BP1 #2	This paper	N/A
Experimental Models: Organisms/Strains		
AB Danio rerio	Zebrafish International Resource Center	Cat# ZL1; RRID: ZIRC_ZL1
Wistar Cmd:(WI)WU rats	Mossakowski Medical Research Centre Polish Academy of Sciences	N/A

Recombinant DNA		
bFos-myc-LC151	Gift from Qingming Luo, Wuhan, China(Chu et al., 2009)	N/A
bJun-HA-LN151	Gift from Qingming Luo, Wuhan, China(Chu et al., 2009)	N/A
lentiGuide-Puro	Sanjana et al. (2014)	RRID: Addgene_52963
pCW-Cas9-Blast	Sanjana et al. (2014)	RRID: Addgene_83481
pGW-myc-LC151	Stefan Pusch (Weiler et al., 2014)	N/A
pGW-HA-LN151	Stefan Pusch (Weiler et al., 2014)	N/A
pGW-myc-LC151-G3BP1	This paper	N/A
pGW-myc-LC151-G3BP1 1-182	This paper	N/A
pGW-myc-LC151-G3BP1 183-332	This paper	N/A
pGW-myc-LC151-G3BP1 333-466	This paper	N/A
pGW-myc-LC151-G3BP2	This paper	N/A
pGW-HA-LN151-LAMP1	This paper	N/A
pGW-HA-LN151-LAMP2	This paper	N/A
pGW-HA-LN151-mTOR	This paper	N/A
pGW-HA-LN151-TSC2	This paper	N/A
pEGFP-C-TSC2	This paper	N/A
pEGFP-C (derivate of pDEST with a C-terminal EGFP tag)	Stefan Pusch	NA
pDEST	Stefan Pusch; Clone repository of the DKFZ Genomics and Proteomics Core Facility (GPCF)	N/A

pENTR221-G3BP1	Clone repository of the DKFZ Genomics and Proteomics Core Facility (GPCF)	Cloneld: 182373397
pENTR223-G3BP2	Clone repository of the DKFZ Genomics and Proteomics Core Facility (GPCF)	Cloneld: 192451551
pENTR221-LAMP1	Clone repository of the DKFZ Genomics and Proteomics Core Facility (GPCF)	Cloneld: 193137117
pENTR221-LAMP2	Clone repository of the DKFZ Genomics and Proteomics Core Facility (GPCF)	Cloneld: 115072391
psPAX2	Shalem et al. (2014)	RRID: Addgene_12260
pMD2.G	Shalem et al. (2014)	RRID: Addgene_12259
R777-E138 Hs.MTOR-nostop	Gift from Dominic Esposito, Addgene	Cat# 70422; RRID: Addgene_70422
R777-E356 Hs.TSC2-nostop	Gift from Dominic Esposito, Addgene	Cat# 70640; RRID: Addgene_70640
siControl (ON-TARGET plus Non-targeting Pool)	Dharmacon	Cat# D-001810-10-05
siG3BP1 pool (ON-TARGET plus Human G3BP1 siRNA – SMART pool)	Dharmacon	Cat# L-012099-00-0020
siG3BP2 pool (ON-TARGET plus Human G3BP2 siRNA – SMART pool)	Dharmacon	Cat# L-015329-01-0020
siG3BP1 (siGENOME) (used for PLA experiments in Figure 3A)	Dharmacon	Cat# M-012099-02-0005
anti-Luc siRNA-1	Dharmacon	Cat# D-002050-01-20
TRIPZ Inducible Lentiviral Human G3BP1 shRNA (F6 = shG3BP1 #1)	Dharmacon	Cat# RHS4696-200750396; Cloneld: V3THS_329105

TRIPZ Inducible Lentiviral Human G3BP1 shRNA (H11 = shG3BP1 #2)	Dharmacon	Cat# RHS4696-200753099; Cloneld: V3THS_329104
TRIPZ Inducible Lentiviral Non-silencing shRNA Control	Dharmacon	Cat# RHS4743
Software and Algorithms		
Adobe Photoshop version CS5.1	Adobe Systems Incorporated	RRID: SCR_014199
Cell Profiler version 3.1.5	Broad Institute of Harvard and MIT (www.cellprofiler.org)	RRID: SCR_007358
CGDS-R package version 1.2.6	https://github.com/cBioPortal/cgdsr	N/A
Dell Statistica version 13	Dell Inc.	N/A
Fiji version 1.49v and 1.52p	ImageJ	RRID: SCR_002285
GraphPad Prism version 7.04 and 8.0	GraphPad Software	RRID: SCR_002798
ImageJ version 1.50b	ImageJ	RRID: SCR_003070
Image Lab version 5.2.1	Bio-Rad	RRID: SCR_014210
ImageQuant TL version 8.1	GE Healthcare	RRID: SCR_014246
Image Studio Lite Version 5.2	Li-Cor	RRID: SCR_013715
NIS Elements version 4.13.04	Nikon	RRID: SCR_014329
TScratch	www.cse-lab.ethz.ch/software.html (ETH Zürich;(Geback et al., 2009)	RRID: SCR_014282
ZEN2012 blue edition	Zeiss	N/A
Oligonucleotides		
AttB1 GGGGACAAGTTTGTACAAAAAAGCAGGCTCCACC	Stefan Pusch	N/A
AttB2 GGGGACCACTTTGTACAAGAAAGCTGGGTT	Stefan Pusch	N/A
G3BP1_B1 CAAAAAAGCAGGCTCCACCATGGTGATGGAGAAGCCTAGTC	Stefan Pusch	N/A

G3BP1_182_B2o CAAGAAAGCTGGGTTGTCATTACTGACAACCTGCCTG ATC	Stefan Pusch	N/A
G3BP1_183_B1 CAAAAAAGCAGGCTCCACCATGGAAGAACATTTAGA GGAGCCTG	Stefan Pusch	N/A
G3BP1_332_B2o CAAGAAAGCTGGGTTTCTTCGGGGTTCAATGTCAC	Stefan Pusch	N/A
G3BP1_333_B1 CAAAAAAGCAGGCTCCACCATGGTGAGACACCCTG ACAG	Stefan Pusch	N/A
G3BP1_B2o CAAGAAAGCTGGGTTCTGCCGTGGCGCAAG	Stefan Pusch	N/A
sgTSC2-Exon 2-F 5'- CACCGACGGAGTTTATCATCACCG	Invitrogen	N/A
sgTSC2-Exon 2-R 5'- AAACCGGTGATGATAAACTCCGTC	Invitrogen	N/A
sgG3BP1-Exon 3-F 5'- CACCGAAGCCAGCAGATGCAGTCTA	Invitrogen	N/A
sgG3BP1-Exon 3-R 5'- AAACTAGACTGCATCTGCTGGCTTC	Invitrogen	N/A
Zebrafish g3bp1 (fwd): 5'- ATGGTGATGGAGAAGCCAAG-3'	Invitrogen	N/A
Zebrafish g3bp1 (rev): 5'- 5'- TTCCATTGTTGTCCAGTCCA-3'	Invitrogen	N/A
Zebrafish β -actin (fwd): 5'- CGAGCAGGAGATGGGAACC-3'	Invitrogen	N/A
Zebrafish β -actin (rev): 5'- CAACGGAAACGCTCATTGC-3'	Invitrogen	N/A
Other		
24 well plates	TPP	Cat# 92424
6 cm cell culture dish	Greiner bio-one	Cat# 628160
10 cm cell culture dish	TPP	Cat# 93100
15 cm cell culture dish	TPP	Cat# 93150
70 Ti Rotor for ultracentrifuge	Beckman Coulter	Cat# 337922
AxioObserver Z1	Zeiss	N/A

Beckman Optima L-70K Ultracentrifuge	Beckman Coulter	Cat# 8043-30-1187
ChemiDoc XRS+	Bio Rad	Cat# 1708265
Cover Glass	VWR international	Cat# 631-0130
E-plate 16 for RTCA	ACEA Biosciences, Inc.	Cat# 05469813001
FUSION FX7 with the DarQ-9 camera	Vilber	N/A
ibidi culture-insert 2 well	ibidi	Cat# 80209
iBlot gel transfer stacks nitrocellulose membrane	Thermo Fisher Scientific	Cat# IB301002
LAS-4000 mini camera system	GE Healthcare	N/A
LAS-4000 camera system	GE Healthcare	N/A
Microscope slides	Thermo Fisher Scientific	Cat# 4951PLUS4
Mini-PROTEAN® Tetra Vertical Electrophoresis Cell system	Bio Rad	Cat# 1658029FC
Nikon ECLIPSE Ti-E/B	Nikon	N/A
NuPage MES SDS running buffer	Thermo Fisher Scientific	Cat# NP0002
NuPage Novex 10% Bis-Tris gel	Thermo Fisher Scientific	Cat# NP0302BOX
Odyssey blocking buffer	Li-cor	Cat# 927-40000
Odyssey 2.1 imaging system	Li-Cor, USA	N/A
RTCA Control Unit with RTCA Software	ACEA Biosciences, Inc.	Cat# 05454417001
RTCA DP Analyzer	ACEA Biosciences, Inc.	Cat# 05469759001

Data availability

All data are available from the corresponding authors upon reasonable request.

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