

Supplementary Information

Supplementary Figure 1

(A) Immunoprecipitated C7orf43-LAP expressed in HEK293 cells was incubated with GST-alone and GST-tagged Rabin8 full-length. Representative results from three independent experiments are shown.

(B) Immunoprecipitated GFP-alone, GFP-tagged C7orf43-LAP, GFP-Rab11aQ70L, and GFP-Rab11aS25N expressed as described in (A) were incubated with recombinant GST-Rabin8. Representative results from two independent experiments are shown.

Supplementary Figure 2

The phylogenetic tree for C7orf43/TRAPPC14 for the following BLAST identified proteins: *N.nippon*, XP_009472339.1; *M.musculus*, NP_694801.2; *D.rerio*, XP_001339329.2; *H.sapiens*, NP_060745.3; *X.tropicalis*, NP_001121523.1, *T.rubripes*, XP_003970822.1; *N.vectensis*, XP_001632706.1. A tree was constructed using these sequences on MacVector software (Version 15.5.0). Values over branches, or branch lengths, represent evolutionary distances. Method: Neighbor Joining; Best Tree; tie breaking = Systematic Distance: Uncorrected ("p") Gaps distributed proportionally.

Supplementary Figure 3

Multiple sequence alignment of the C7orf43 orthologs from Fig. S2 was performed using ClustalW in MacVector software (Version 15.5.0). MSF file was generated and imported into BoxShade. A glycine-rich region from residues 53 to 134 is also well conserved in mammals.

Supplementary Figure 4

(A) Serum fed RPE-1 cells transiently expressing C7orf43-LAP for 24h, fixed and stained with antibodies for the Golgi marker GM130. Nuclei were stained with DAPI. Images are representative from two independent experiments. Scale bar =10 μ m. (B) Panels show representative images of RPE-1 cells transiently expressing C7orf43-LAP and tRFP-Rabin8 for ~24h and serum-starved for the last 1h followed by fixation with -20°C methanol for 10min. Antibody staining for Myosin-Va and gamma-tubulin (centriole marker) and imaging was as in (A) without triton in the incubation buffers. Representative images are shown from two independent experiments. Scale bar top panel = 10 μ m, bottom panel = 1 μ m. (C) Representative images of RPE-1 cells treated as described in Fig. 3B showing C7orf43-LAP and tRFP-Rabin8 colocalization in the distal region of cilia (marked by ^Ac_{tub}). The ciliary localization of exogenously expressed proteins was observed in two cells out of a total of n>100 ciliated cells from three independent experiments. Scale bar = 2 μ m. (D) Plot of GFP-Rabin8 centrosomal accumulation from RPE-1 GFP-Rabin8 cells treated with siControl, siC7orf43#1, siC7orf43#2, or siC7orf43#1+#2 and starved for 1-2h as described in Fig. 3C and 3D. Means \pm s.e.m are shown from three independent experiments with n>120 cells counted in total. * P < 0.05, ** P < 0.01, *** P < 0.001.

Supplementary Figure 5

Multiple sequence alignment of the *S.cerevisiae* Trs65 (KZV11397.1) with human, mouse and frog sequences of C7orf43/TRAPPC14 from Fig. S2 was generated using Muscle matrix in MacVector software (Version 15.5.0) and alignment was rendered as in Fig S3. Stretches of higher homology are shown with a pink bar. In a parallel analysis, Clustal Omega (ClustalW matrix with

default settings) was used to calculate % identity. *S.cerevisiae* Trs65 displayed 20.4%, 20.4%, and 20.3% identity to human, mouse and frog C7orf43/TRAPPC14, respectively.

Supplementary Figure 6

(A) Western blot from HEK293 cell lysate treated with RNAi for a Control, C7orf43/TRAPPC14, TRAPPC3, -C9, or -C10 and blotted with TRAPPC and β -actin antibodies. Representative results from three independent experiments are shown. (B) Immunoprecipitation analysis of transiently-expressed GFP after siControl and siTRAPPC10 treatments as described in Fig. 6A. GFP was transfected into cells 24h after RNAi treatment. Immunoblots were probed with antibodies as indicated. Protein levels compared to siControl treatments were determined by densitometry analysis and are shown below blots normalized for actin levels. Representative results from three independent experiments are shown.

Supplementary Figure 7

(A) Immunoblot of RPE-1 cells depleted of FBF-1, CEP83, and CEP164 following 72h RNAi treatments and probed with specified antibodies. Representative blot from two independent experiments are shown. (B) Immunoblot of immunoprecipitated HA-luciferase or HA-C7orf43/TRAPPC14 with LAP-CEP83. Representative results from two independent experiments performed in HEK293 are shown.

Supplementary Table S1: siRNAs used in this study

Gene	SiRNA	Sense sequence	Company (Cat no.)
hC7orf43	siC7orf43 #1	ACAAGATTGCCAAGCGCGA	Dharmacon (J-016464-19/ OTP)
hC7orf43	siC7orf43#2	AGAGGGTGGTGGTGGCTAA (targeting 3'UTR)	Dharmacon (J-Custom/OTP)
hCEP83	siCEP83 #1	GAATCTAGATGAAGAGGTA	Dharmacon (J-021034-18 OTP)
hCEP83	siCEP83 #2	AGGTGAAGTTGGTGGTACTCA (Reference 1) (targeting 3'UTR)	Dharmacon (Custom/OTP)
hCEP164	siCEP164 #1	CAGGTGACATTTACTATTTCA (Reference 2)	Dharmacon (Custom/OTP)
hCEP164	siCEP164 #2	AAGAAGATACAGGAAGCTCAA (Reference 2)	Dharmacon (Custom/OTP)
hFBF1	siFBF1 #1	GGAACAACCTGCACGAGAAA	Dharmacon (J-030807-18/ OTP)
hFBF1	siFBF1 #2	GGTTGGGCCTCAAGGACGA	Dharmacon (J-030807-19/ OTP)
hTRAPPC10	siTRAPPC10	GGTAAATAGTGATAGTTGA (Reference 3)	Dharmacon (J-008621-09/ OTP)

hTRAPPC9	siTRAPPC9	GAAAGTCAGCAACTAATCA (Reference 3)	Dharmacon (J- Custom/ OTP)
hTRAPPC3	siTRAPPC3	TCAGGCGGATTGAGGACAA (Reference 3)	Dharmacon (J-017649- 12/ OTP)

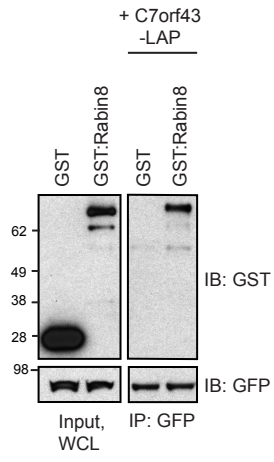
Reference 1: Joo K, *et al.* (2013) CCDC41 is required for ciliary vesicle docking to the mother centriole. *Proc Natl Acad Sci U S A* 110(15):5987-5992.

Reference 2: Schmidt KN, *et al.* (2012) Cep164 mediates vesicular docking to the mother centriole during early steps of ciliogenesis. *J Cell Biol* 199(7):1083-1101.

Reference 3: Westlake CJ, *et al.* (2011) Primary cilia membrane assembly is initiated by Rab11 and transport protein particle II (TRAPPII) complex-dependent trafficking of Rabin8 to the centrosome. *Proc Natl Acad Sci U S A* 108(7):2759-2764.

Figure S1

A



B

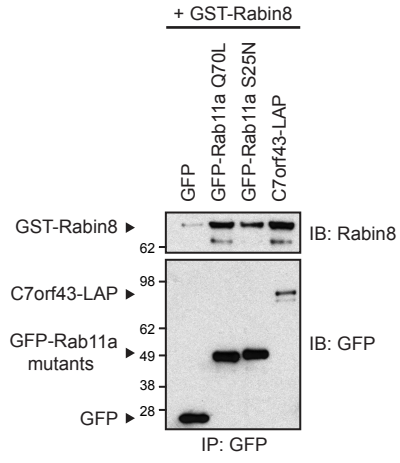


Figure S2

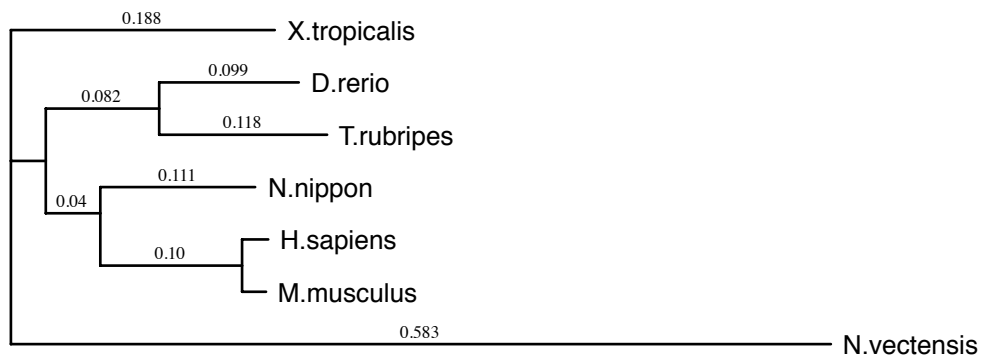
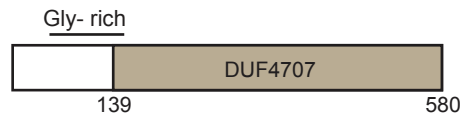


Figure S3



H.sapiens 1 ----MESQCDYSMYFFPAVPLPPRAELAGDPGRYRALPRRNHLYLGETVRFLLVLRCR--GG
M.musculus 1 ----MESQCDYSMYFFPAVPLPPRAELAGDPGRYRALPRRNHLYLGETVRFLLVLRCR--GS
X.tropicalis 1 ----MESQCDYSMYFFPACP LLP----SDLPVRYRALPRRNHLYLGETVRFLLVLRRLRSAG
D.rerio 1 MVLMMESQCEYFMFYFPAVPI SD----LSDPAKYRTLPRRSHLYLGETVRFLLVLRSSQSAS
T.rubripes 1 ----MESQCEYMYFFPAVPI TD----LSDPARYRTLPRRSHLYLGETVRFLLVLRCRDGA
N.nippon 1 ----
N.vectensis 1 ----MAGVKLDSNFFIFLPHIS----TREPVS DIEKGPRYS CFV GELLHFFLTAQFRGKG

H.sapiens 56 AGSGTGG-----G PGLGSRGAWAELATALAALIASVSAGGG-----M
M.musculus 56 VGAGVGG-----GAGLASRGAWTELATSLAALIASVSAGGA-----L
X.tropicalis 53 ERPQERA-----GTEASAVGEASQESPGSEAFSWAPLAAS-----L
D.rerio 57 GSSDGSC-----GSEQHSSRSWRRELAGSLSAVASVSPGDS---RQRTQPLYHDYHS
T.rubripes 53 GTPADHCPARNCTPSFGTELASSQAWRELAGSLCAVASVSPGESRRHRSSHYPHHHDYQS
N.nippon 1 -----MAPPRVSPGGT-----E
N.vectensis 53 DSTDGVR-----EWQNRLRLRLNTCVSVSCVDLASR-----

H.sapiens 92 PGGGGAGDQD--SEPPGGGDPGGG-----LFRGCSPLLTHGPG----PATS GGATT
M.musculus 92 PGCGSAGDQD--ADPPGGGDPGGG-----LFRGCSPLLTHGCG----PATS GGATT
X.tropicalis 89 SALASVCPGEEEEEEEEEESESPA-----GYRGCKAIVSQQQ----PPPGAAPSG
D.rerio 105 SGDECVEDTDED---DAAEAVGCPG-RGGPRYRGFRECKPLLIHNNP GNGVREFRRAPVQ
T.rubripes 113 SGDEANDDGEEDYIAAAEAAIAALGSRVDSRCRSFRDCKPLLIHNSSGTATREFRRAPVQ
N.nippon 13 AGGDRDGLDGTGDDTSGASLEPT-----VFRDCRALLTHSQG----P PGRP-AAG
N.vectensis 83 -----SDECQIKSG-----FVKCYAVSSFRNE----KIIDSPHDS

H.sapiens 138 LPVEEPIVST-DEVIFPLTVSLDRLPPGTPKAKIVVTVWKREIEAPEVRDQG----YLR
M.musculus 138 LPVEEPIVST-DEVIFPLTVSLDRLPPGTPKAKIVVTVWKREVEAPEVRDQG----YLR
X.tropicalis 136 TPVTDPVVSS-DEVIFPLSVSLDRLPPGTVKAKIVVTVWKRDTEQSRVRTFG----YRS
D.rerio 161 SPVDEPVVLS-DEVIFPLTVSLDKLPVNTLKVKIIVTVWKEEAEIQEHG----YLS
T.rubripes 173 SPLDEPVVLT-DEVIFPLTVSLDKLPVNTLKVVMVTVWKREAEKAEVQELG----YLS
N.nippon 60 IPVEDPIVST-DEVIFPLTISLDKLPVNTLKVVMVTVWKRDTEFPEIQEGGG----YLS
N.vectensis 115 TKVHCPIITSRGDIYPLTASLDVLPALSKRIKLSVNVWVQELSAFVNVTNGLQWSNYVD

H.sapiens 192 LLQTRSPGETFRGEQSAFKAQVSTLLTILPPPVLRCRQFTVAGKHLTVLKVLNSSSQEEI
M.musculus 192 LLQTRSPGETFRGEQSAFKAQVSTLLTILPPPVLKCRQFTVAGKHLTVLKVLNSSSQEEI
X.tropicalis 190 LLQNSAPGQIFREEQGT FKAQVSTLLTVLPPPTLRCRQINVAGKHFTAVKVLNTSSQDEL
D.rerio 215 ILQOKSPCQTFRQDLNTFKAQVSTLLNVLPPPTVKCQOMTVSGRHLTVLKVLNSSSQEEV
T.rubripes 227 VLQOCEPHTHFRHDLNTFKAQVSTLLTVLPPPTVHCKQMTVSGKHLAVLKVLSGSSQEEI
N.nippon 115 LLQTRAPAHVFRQEQGAFKAQVSTLLTVLPPPVRRCRQLTVSGKYLTVLKVLN GWSQEEI
N.vectensis 175 YFINNDPDDALGDLQTPFRCHVNATLPVVSPPPTVRGKFTTATGKHYYVAIEVINSLG-EFV

H.sapiens 252 SIWDIRILPNFNASYLPVMPDGSVLLVDNVCHQSSEVSMGSFCRLPGTSGCFPCPI NALE
M.musculus 252 SIWDIRILPNFNASYLPVMPDGSVLLVDNVCHQSSEVSMGSFCRLPGTSGYHPCPLSALE
X.tropicalis 250 SICDVRILPNFNANLYLPVMPDGSVLLVDNVCHQSGDITMASFLRLHSASSQLFSRLGSLE
D.rerio 275 CVRDVKILPNFNASYLPMPDGSVLLVDNVCHQSSEVAMASFYRMDSESSHLP SMLSAL
T.rubripes 287 SIRDIRILPNLNASYLPMPDGSVLLVDNVCHQSSEVGMASYCRVDSLASHLPTMLSTLE
N.nippon 175 SLWDVQILPNFNASYLPVMPDGSVLLVDNVCHHSSEVPGAFCRVASAGSACPCALSAL
N.vectensis 234 TIHKVSVHTSSHSITRRSGPAKHALSNSQNRYS---SVYTVPLLPNEASEHTPTLLPCE

Figure S3 cont.

H.sapiens	312	EHNFLFQLRGGEQPPPGAKEGLEVPLI AVVQWSTPKLPFTQS -IYTHYRLPSVRLDRPCF
M.musculus	312	EHNFLFQLRGGEQPPPGAKEGLEVPLI AVVQWSTPKLPFTQS -IYTHYRLPSVRLDRPCF
X.tropicalis	310	EHNFLFQLOAGERTPEPEDAKEGLEVPLVAI VHWSTPK-PLTSG -IYTHYKLPISIRLERPRF
D.rerio	335	E Q NFLFQQLNNQPD Q DDSN E GLEVPLVAVI Q WSTSKLPFTNS-IYTHYSLPSIRLDRPRF
T.rubripes	347	E Q DFV F Q L H L N E V P Q D DSN E GLEVPLVAVI Q WSTH K M P F T N C -IYTHYRLPSIRLDRPRF
N.nippon	235	EHNFLFQLOAPERPPPEDAKEGLEVPLVAVI Q WSTPKLPFTSS-IYTHYRLPSIRLERPRF
N.vectensis	291	HST L F R I V Q P D S S I P Y Q K Q-RDID L L S S V T W S V N T L D L R H Q H I T T R Y S L P H L N I Q R S S V

H.sapiens	371	VMTASCKSPVRTYERFTV TY TLLN L QDFLAVRLVWTP EH --AQAGKQLCEEERRAMQAA
M.musculus	371	VMTASCESPVRTYERFTV TY TLLN L QDFLAVRLVWTP EH --AQAGKQLCEEERRAMQAA
X.tropicalis	368	VMTACCDSPVQMHKPF R V TY TLLN D LQDFLAVRLVWTP DT TNTTGAGRG T SEED R RLTKAV
D.rerio	394	VMTASCP S AVRTREN F RV RY TLLN L QDFLAVRLVWTP EG -----RGQKEDPA
T.rubripes	406	VMTASCPSTV R V K EQ F K V K Y VLLN L QDFLAVRLVWTP D SE--FHFMCV C VRRGQGEDSS
N.Nippon	294	VMTAACESP V RRAR Q RFTV TY TLLN D LQDFLAVRLVWTP P ET--ATAGKKLSGEERRATQAA
N.vectensis	350	TVKASANS T I K NG T R F V N Y T V N N E DEADFNASMLWQHNLG-----THLMPGMHNID

H.sapiens	429	LDSV V CH T PLN N L G F S SRKGSAL T FSVAFQAL R TGLFELS S QHMKLKLQFTASVSHPPPEAR
M.musculus	429	LDS I V C H T PLN N L G F S SRKGSAL T FSVAFQAL R TGLFELS S QHMKLKLQFTASVSHPPPEAR
X.tropicalis	428	Q E AV V CH T P I NSL G F C RKGS S V T V G V T F M ALRAGL F ELS S QHMKLKLQFTASASQPPDAR
D.rerio	442	V N AV V CH S PL S NL G Y C RKGS T LS V S V AFQ I L R AGL F ELS S QHMKLKLQFTASVSNPPDAR
T.rubripes	464	L S AV I CH A PL S NL G Q C RKGS T LS F S V AFQ I L K P G L Y ELS S QHMKLKLQFTASVSNPPDAR
N.Nippon	352	L D A I V C H T PLN N L G YSR K GSAL T IR V AFQAL R AGL F ELS S QHMKLKLQFTASVANPPPEAR
N.vectensis	402	SNS L I C L O P S L K L G V P -S G C S Q N F O V E F L A V Q E GL H EL H P C F P Y R -----

H.sapiens	489	PLSRKSSPSSPAVRDL V ERHQAS---LGRSQSFSHQQPSRSHLMRSGVMERRAITPPVA
M.musculus	489	PLSRKSSPSSPAVRDL V ERHQAS---LGRSQSFSHQQPSRSHLMRSGVMERRAITPPVA
X.tropicalis	488	P V SR R SSPSSPA I RD L ER Q Q S G--VLGRSQSFSHQQPT R G Q L I RTGSMERRAITPPVG
D.rerio	502	PLSRK N SPSSPAVRD L DRHQASLS-LGRSQSFSHQQPS K F H L T RTGSMERRAITPPVG
T.rubripes	524	PLSRK N SPSSPAVRD L DRHQ A --S-LGRSQSFSHQQPSRSH I M R T G SAMERRAITPPVG
N.Nippon	412	P V SR K SSPSSPAVRDL V ERHQAG---LGRSQSFSHQQPSRSHLMRSGVMERRAITPPVG
N.vectensis	446	-----D T F S F K G P Q K -----VGRSMVCQLSG

H.sapiens	546	SPVGRPLYLPP-DKAVLSLDKIAKRECKVLVVEPVK--
M.musculus	546	SPVGRPLYLPP-DKAVLSLDKIAKRECKVLVVEPVK--
X.tropicalis	546	SP I GRPLYLPP-ERAALS L DKIAK R QCKVLV V HPVQ--
D.rerio	561	SPVGRPLYLPP-DRN L SLDKIAKRECKVLV L DSHN--
T.rubripes	581	SPVGRPLYLPPQ D KS L SLDKIAKRECKVLV V DPICSE
N.Nippon	469	SPVGRPLYLPP-EKT V LSLDKIAKRECKVLVVEPVK--
N.vectensis	467	DFGER P RL I GG-----AGT L SH S C O V F VID N NR--

 Glycine-rich domain

Figure S4

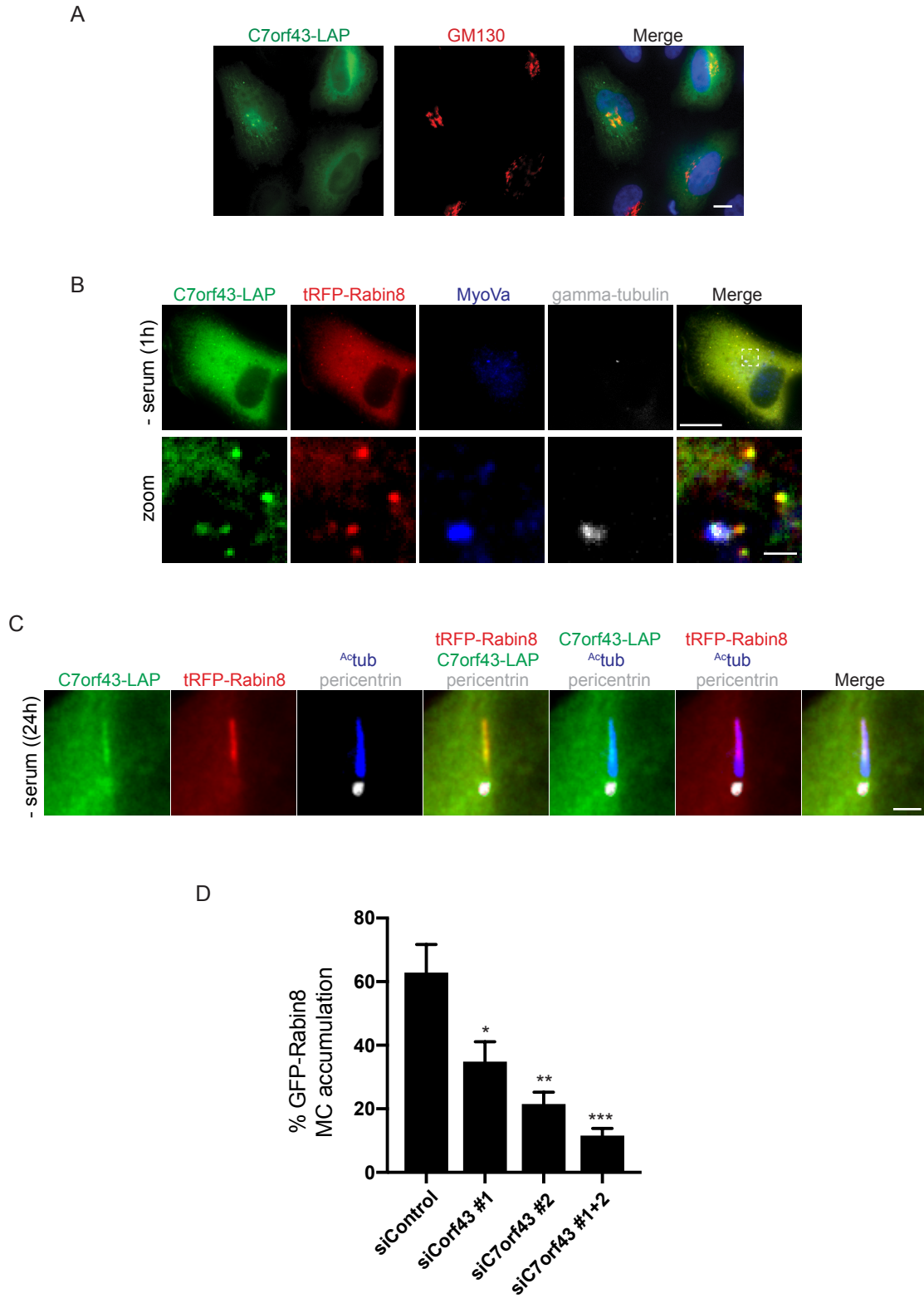


Figure S5

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S.cerevisiae Trs65 1 -----MECFVPLRCDLDGSNIEQLRQSHLSRK-FIIFDEQLNLWVWFQ-----
H.sapiens C7orf43 1 MESQCDYSMYFPAVPLPPRAELAG---DPGRYRALPRRNHLYLGETVRFLLVLRG----
M.musculus C7orf43 1 MESQCDYSMYFPAVPLPPRAELAG---DPGRYRALPRRNHLYLGETVRFLLVLRG----
X.tropicalis C7orf43 1 MESQCDYSMTFPACPLTE-SDL-----PVRYRALPRRNHLYLGETLRFLLVLRG-----

S.cerevisiae Trs65 43 -----GNSQENKR---EVLQNMIISSINE-AQVIRTSTIDDYFTIQVENNENL
H.sapiens C7orf43 53 ---RGCAGSGTGGGPGGLGSRG---AWAELATA LAALASVSAGGMPGGGGAGDQDSEP
M.musculus C7orf43 53 ---RGSVGAGVGGGAGLASRG---AWTELATSLAALASVSAGGALPGCGSAGDQDADP
X.tropicalis C7orf43 54 RAGTEASAVGEASQESPGSEAFSWAPLAASLSALASVC-----PGEETAEEEEES

S.cerevisiae Trs65 85 WKLKNDCCSKILFKSNVVMNNGYNNQIKFVFEYKSVLANFNNDSDIQQDPQARYTLDKYSS
H.sapiens C7orf43 105 PGGGDPGGGGLFRGCSPLLTHGPGPATSGGATTLVVEEPIVSTDEVIFPLT-VSLDRLPP
M.musculus C7orf43 105 PGGGDPGGGGLFRGCSPLLTHGQGPATSGGATTLVVEEPIVSTDEVIFPLT-VSLDRLPP
X.tropicalis C7orf43 109 EES--PAG---YRGCKAIVSQQPPPGAAPSGT-PVTDPVVSSDEVIFPLS-VSLDRLPP

S.cerevisiae Trs65 145 EEILPSFEPVYSWSSTATKSSKNTN NHLE-KNSRATHRVSSKNSEVHEADVSRNPNTFTL
H.sapiens C7orf43 164 GTPKAKI-VVTVWKRELEAPEVRDQGYLRLLQTRS PGETFRGEQSAFKAQVS----TLLT
M.musculus C7orf43 164 GTPKAKI-VVTVWKRELEAPEVRDQGYLRLLQTRS PGETFRGEQSAFKAQVS----TLLT
X.tropicalis C7orf43 162 GTVKAKI-VVTVWKRELEQSRVRFEGYRSLLQNSAPGQIFREEGTFFKAQVS----TLLT

S.cerevisiae Trs65 204 KIQYPIFSLNMRLRNLSIKSEHCILSSLDFTSKASEQLT--KKFTYPOEHNSTLKNF
H.sapiens C7orf43 219 LLPPP-----LRCRQFTVAGKH--LTVLKVLNSSSQEEISIWDIRILPNFNASYLPV-M
M.musculus C7orf43 219 LLPPP-----LRCRQFTVAGKH--LTVLKVLNSSSQEEISIWDIRILPNFNASYLPV-M
X.tropicalis C7orf43 217 VLPPPT-----LRCRQINVAGKH--FTAVKVLNSSQDELSTCDVIRILPNFNANYPV-M

S.cerevisiae Trs65 262 QEISYKIDG---ISQTEIDPICPLK-----VPLTAFSYDSISATFKLVLLPKSTQP
H.sapiens C7orf43 271 PDGSVLLVDNVCHQSGEVSMSGFCRLPGTSGCFPCPLNALEEHNFLFQLRGGEQPPGAK
M.musculus C7orf43 271 PDGSVLLVDNVCHQSGEVSMSGFCRLPGTSGYFPCPLSALEEHNFLFQLRGGEQPPGAK
X.tropicalis C7orf43 269 PDGSVLLVDNVCHQSGDITMASFLRLHSASSQLPSRLGSLLEEHNFLFQLQAGERPPEDAK

S.cerevisiae Trs65 311 HRVKITL-----AYELEHPNLKLPVRTSWETEVTIKRSMPISSSTSQYSSNNN
H.sapiens C7orf43 331 EGLEVPLIAVVQWSTPKLPFTQSIYTHYRLP-----SVRLDRPCFVMTASC-SPVRT
M.musculus C7orf43 331 EGLEVPLIAVVQWSTPKLPFTQSIYTHYRLP-----SVRLDRPCFVMTASC-SPVRT
X.tropicalis C7orf43 329 EGLEVPLIAVHWSTPK-ELTSGIYTHYKLP-----SIRLERRFVMTACC-SPVQM

S.cerevisiae Trs65 360 NTNHSASFNGAANNVNSGGLANRL-----GGVSSRFSGAASTTSLVNSK
H.sapiens C7orf43 383 YERFTVYTYT-LLNNLQD--FLAVRLVWTPEHAQ--AGKQLCEEERRAMQAALDSVVCHTP
M.musculus C7orf43 383 YERFTVYTYT-LLNNLQD--FLAVRLVWTPEHAQ--AGKQLCEEERRAMQAALDSVVCHTP
X.tropicalis C7orf43 380 HKPFRVYTYT-LLNDLQD--FLAVRLVWTPDTNTTGAGRGTSEDRRLTKAVQEA VVCHTP

S.cerevisiae Trs65 407 LSNVKFKFINSNFKVIKGEKFTMRLQINSSSSPDIIVVYNNNTN-PIPSANNVRNSNG
H.sapiens C7orf43 438 LNNLGF SRKGSALTF--SVAFQALRTGLFELSQHMKLKLQFTASVSHPPPEARPLSRKSS
M.musculus C7orf43 438 LNNLGF SRKGSALTF--SVAFQALRTGLFELSQHMKLKLQFTASVSHPPPEARPLSRKSS
X.tropicalis C7orf43 438 LNSLGF CRKGSVTV--GVTFMALRAGLFELSQHMKLKLQFTASASQPPPDAREVSRSS

S.cerevisiae Trs65 466 INNCGMNNGTIPHSPLILEN----QYQLHNKYRKIAEGITLLSNDYKIPVVP--RETIFY
H.sapiens C7orf43 496 PSSPAVRDLVERHQA-SLGRSQSFHQQPSRSHLMRSGSVMERRAITPPVASPVGRPLYL
M.musculus C7orf43 496 PSSPAVRDLVERHQA-SLGRSQSFHQQPSRSHLMRSGSVMERRAITPPVASPVGRPLYL
X.tropicalis C7orf43 495 PSSPAVRDLERQQSGVLRGSRQSFHQQPTRGQLIRTGSMERRAITPPVGSPLGRPLYL

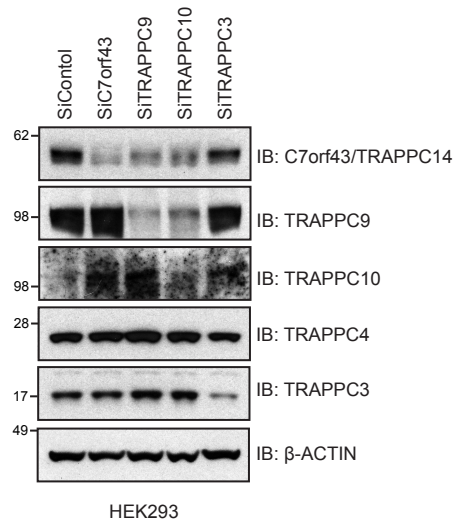
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H.sapiens C7orf43 555 PPK-----AVLSLDKIAKRECKVLVVEPVK
M.musculus C7orf43 555 PPK-----AVLSLDKIAKRECKVLVVEPVK
X.tropicalis C7orf43 555 PPER-----AALS LDKIAKRECKVLVVEPVQ

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Regions of higher homology

Figure S6

A



B

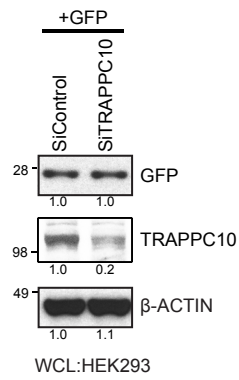


Figure S7

