

Supplementary Table 1. 2-fold or more upregulated genes after siRNA mediated knockdown of either hPop1 or Rpp40 in HEP-2 cells compared to control transfected cells.

gene symbol	description	hPop1 ^a	Rpp40 ^a	GO-term biological process ^b
<i>RSAD2</i>	Viperin	3,6	2,0	defense response to virus
<i>SYPL1</i>	Synaptophysin-like protein 1	3,2	2,5	transport / synaptic transmission
<i>NT5C3</i>	Cytosolic 5'-nucleotidase 3	3,1	n.s.	pyrimidine nucleoside metabolic process
<i>TRIM22</i>	Tripartite motif-containing protein 22	2,9	1,4	response to virus / immune response / regulation of transcription, DNA-dependent
<i>DAZAP2</i>	DAZ-associated protein 2	2,6	1,9	?
<i>MUC13</i>	Mucin-13 precursor	2,6	n.s.	?
<i>INDO</i>	Indoleamine 2,3-dioxygenase	2,5	n.s.	Immune response
<i>LIMA1</i>	Epithelial protein lost in neoplasm	2,5	1,4	neg. regulation of actin filament depolymerization ruffle organization and biogenesis
<i>GBP3</i>	Guanylate-binding protein 3	2,5	n.s.	Immune response
<i>PARP12</i>	Poly [ADP-ribose] polymerase 12	2,5	1,5	?
<i>GSTA1</i>	Glutathione S-transferase A1	2,5	1,2	glutathione metabolic process
<i>ARPC1A</i>	Actin-related protein 2/3 complex subunit 1A	2,5	2,9	actin cytoskeleton organization
<i>CASP7</i>	Caspase-7 precursor	2,5	2,1	release of cytochrome c from mitochondria / proteolysis / apoptosis / heart development
<i>H3F3A</i>	Histone H3.3	2,5	2,9	nucleosome assembly
<i>TNFSF10</i>	Tumor necrosis factor ligand superfamily member	2,5	1,4	apoptosis / immune response / cell-cell signaling / signal transduction / pos. reg. I-kappaB kinase/NF-kappaB cascade
<i>BTBD3</i>	BTB/POZ domain-containing protein	2,4	n.s.	? Protein binding (mol. Function Go term)
<i>USP41</i>	Putative ubiquitin carboxyl-terminal hydrolase	2,4	1,6	ubiquitin-dependent protein catabolic process
<i>DDT</i>	D-dopachrome decarboxylase	2,4	2,4	melanin biosynthetic process from tyrosine
<i>HCP5</i>	HLA class I histocompatibility antigen protein	2,4	1,2	?
<i>BAG2</i>	BAG family molecular chaperone regulator 2	2,4	1,8	protein folding / apoptosis / prot. metabolic process
<i>CAPNS1</i>	Calpain small subunit 1	2,3	2,0	positive regulation of cell proliferation
<i>FAM8A1</i>	Protein FAM8A1	2,3	1,7	G-protein coupled receptor protein signaling
<i>HIST1H2AC</i>	Histone H2A type 1-C	2,2	n.s.	nucleosome assembly
<i>SAMD9</i>	Sterile alpha motif domain-containing protein 9	2,2	1,4	? Localized to cytosol
<i>BTN3A1</i>	Butyrophilin subfamily 3 member A1 precursor	2,2	1,4	lipid metabolic process
<i>PARP10</i>	Poly [ADP-ribose] polymerase 10	2,2	1,2	nucleic acid binding (mol go term), may play a role in cell proliferation
<i>OGFR</i>	Opioid growth factor receptor	2,2	1,3	regulation of cell growth
<i>C14orf100</i>	JNK1-associated membrane protein	2,1	n.s.	? May be a regulator of the duration of MAPK8 act. in resp. to various stress stimuli (By similarity)
<i>IER3IP1</i>	Immediate early response 3-interacting protein 1	2,1	1,8	? May be involved in protein transport between endoplasm. Reticul. and Golgi app. (By similarity)
<i>TTC35</i>	Tetratricopeptide repeat protein 35	2,1	1,5	?
<i>FBXO28</i>	F-box only protein 28	2,1	1,4	ubiquitin-dependent protein catabolic process
<i>GHITM</i>	Growth hormone-inducible transmembrane protein	2,1	1,6	?
<i>DDX58</i>	Probable ATP-dependent RNA helicase DDX58	2,1	1,4	response to virus / innate immune response
<i>ISG15</i>	Interferon-induced 17 kDa protein precursor	2,1	1,4	protein modification process / ubiquitin-dependent protein catabolic process/ cell-cell signaling/ response to virus /

				modification-dependent protein catabolic process / ISG15-protein conjugation / interspecies interaction between organisms
<i>HLA-F</i>	major histocompatibility complex, class I, F isoform 3 precursor	2,1	1,4	antigen processing and presentation of peptide antigen via MHC class I / immune response /
<i>IFI35</i>	Interferon-induced 35 kDa protein	2,1	n.s.	immune response / response to virus
<i>SLC22A4</i>	Solute carrier family 22 member 4	2,1	1,6	triacylglycerol metabolic process / ion transport / body fluid secretion / carnitine metabolic process
<i>PRKD1</i>	Serine/threonine-protein kinase D1	2,1	1,2	protein amino acid phosphorylation / intracellular signaling cascade / cell proliferation
<i>TRIM5</i>	Tripartite motif-containing protein 5	2,0	1,2	ubiquitin-dependent protein catabolic process / response to virus / interspecies interaction
<i>PPBP</i>	Platelet basic protein precursor	2,0	1,2	chemotaxis / immune response / cell proliferation / glucose transport / defense response to bacterium
<i>IFI27</i>	Interferon alpha-inducible protein 27	2,0	1,4	aging / response to virus
<i>FLJ11286</i>	UPF0515 protein C19orf66	2,0	1,2	?
<i>IFIH1</i>	Interferon-induced helicase C domain-containing protein 1	2,0	1,4	response to virus / regulation of apoptosis / interspecies interaction between organisms / innate immune response
<i>ID3</i>	DNA-binding protein inhibitor ID-3	2,0	-1,2	negative regulation of transcription / epithelial cell differentiation / positive regulation of apoptosis / regulation of DNA replication / multicellular organismal development / heart development / response to wounding / neuron differentiation
<i>HSPB8</i>	Heat shock protein beta-8	2,0	n.s.	response to heat
<i>SLC15A3</i>	Solute carrier family 15 member 3	2,0	n.s.	oligopeptide transport / protein transport
<i>ZBTB38</i>	Zinc finger and BTB domain-containing protein 38	2,0	1,3	positive regulation of transcription
<i>ERO1L</i>	ERO1-like protein alpha precursor	2,0	1,8	protein modification process / protein thiol-disulfide exchange / transport / response to temperature / electron transport chain / endoplasmic reticulum unfolded protein response / chaperone cofactor-dependent protein folding
<i>AGXT2L1</i>	Alanine--glyoxylate aminotransferase 2-like 1	2,0	n.s.	amino acid metabolic process
<i>PLEKHA2</i>	Pleckstrin homology domain-containing family A member 2	2,0	1,4	? May recruit other proteins to the plasma membrane (By similarity)
<i>MAL2</i>	Protein MAL2	n.s.	2,5	?The protein is a component of lipid rafts and, in polarized cells, it primarily localizes to endosomal structures beneath the apical membrane. It is required for transcytosis, an intracellular transport pathway used to deliver membrane-bound proteins and exogenous cargos from the basolateral to the apical surface.
<i>CNOT6</i>	CCR4-NOT transcription complex subunit 6	1,5	2,3	transcription
<i>RAD51AP1</i>	RAD51-associated protein 1	1,2	2,1	double-strand break repair via homologous recombination / nucleosome assembly
<i>UHMK1</i>	Serine/threonine-protein kinase Kist	1,6	2,0	protein amino acid phosphorylation / cell cycle arrest / regulation of protein export from nucleus
<i>CAB39</i>	Calcium-binding protein 39	1,8	2,0	Akt/PKB signaling pathway (CST) / mTor signaling (KEGG)
<i>AP2B1</i>	AP-2 complex subunit beta-1	1,6	2,0	vesicle-mediated transport / defense resp. to virus

^a Only genes more than 2-fold up- or down-regulated by both the hPop1 and Rpp40 knock-downs are shown.

^bGO-terms listed are from the Gene Ontology Consortium [36].

n.s.: not significant (P>0.05)

Supplementary Table 2. 2-fold or more downregulated genes after siRNA mediated knockdown of either hPop1 or Rpp40 in HEP-2 cells compared to control transfected cells.

gene symbol	description	hPop1 ^a	Rpp40 ^a	GO-term biological process ^b
<i>NQO1</i>	NAD(P)H dehydrogenase [quinone] 1	-4,6	-3,0	xenobiotic metabolic process / nitric oxide biosynth. process / response to oxidative stress / synaptic cholinergic / toxin resp. / neg. regulation of catal. activity / oxidation reduction
<i>HMOX1</i>	Heme oxygenase 1	-3,5	-3,5	heme oxidation
<i>NAT13</i>	N-acetyltransferase 13	-2,7	n.s.	N-terminal protein amino acid acetylation / metabolism
<i>TRIM16</i>	Tripartite motif-containing protein 16	-2,6	-1,8	May play a role in the reg. of keratinocyte diff.
<i>FTL</i>	Ferritin light chain	-2,5	-1,2	iron ion transport / cellular iron ion homeostasis
<i>TRIB3</i>	Tribbles homolog 3	-2,5	-1,6	transcription / aa phosphorylation / neg. reg. protein kinase activity / stress response / regulation of MAP kinase activity / apoptosis
<i>IER3</i>	Radiation-inducible immediate-early gene IEX-1	-2,4	-1,8	apoptosis / anti-apoptosis / anatom. struct. morph.
<i>TKT</i>	Transketolase	-2,4	-1,7	regulation of growth
<i>CXCL2</i>	C-X-C motif chemokine 2 precursor	-2,3	-1,5	chemotaxis / inflammatory response / immune resp.
<i>YWHAZ</i>	14-3-3 protein zeta/delta	-2,3	-1,3	protein targeting / anti-apoptosis / signal transduct.
<i>IL18</i>	Interleukin-18 precursor	-2,3	-1,7	angiogenesis / immune response / T-helper 1 and 2 type immune response / positive regulation of activated T cell proliferation
<i>IL8</i>	Interleukin-8 precursor	-2,3	-3,4	angiogenesis / immune response / cell motion / inflammatory response / cell-cell signaling / neg. regulation of cell proliferation / cell adhesion
<i>FAM129A</i>	Protein Niban	-2,3	-1,6	regulation of protein amino acid phosphorylation / stress response / positive regulation of translation
<i>TXNRD1</i>	Thioredoxin reductase 1, cytoplasmic	-2,3	-1,6	mesoderm formation / signal transduction / response to oxidative stress / cell proliferation / electron transport chain
<i>CYBASC3</i>	Cytochrome b ascorbate-dependent protein 3	-2,3	-1,3	transport / electron transport chain
<i>MKMK2</i>	MAP kinase-interacting serine/threonine-protein kinase 2	-2,3	n.s.	reg. of translation / amino acid phosphorylation / stress resp. / cell surf. receptor signal transduct.
<i>ALPK3</i>	Alpha-protein kinase 3	-2,2	-1,4	protein amino acid phosphorylation / multicellular organismal development / heart development
<i>AKR1C1</i>	Aldo-keto reductase family 1 member C1	-2,1	-1,2	xenobiotic metabolic process / digestion / cholesterol homeostasis / oxidation reduction
<i>MYH10</i>	Myosin-10	-2,1	n.s.	cytokinesis post mitosis / in utero embryo develop. cell proliferation / actin filament-based movement
<i>CDKN2A</i>	Cyclin-dependent kinase inhibitor 2A,	-2,1	n.s.	G1/S transition of mitotic cell cycle /

<i>OLR1</i>	isoforms 1/2/3 Oxidized low-density lipoprotein receptor 1	-2,1	-1,9	rRNA processing / caspase activation proteolysis / inflammatory resp. / immune resp. cell adhesion / blood circulation
<i>HEATR5A</i>	HEAT repeat-containing protein 5A	-2,1	-1,5	reg. of transcription, DNA-dependent / pathogen.
<i>CUL1</i>	Cullin-1	-2,1	n.s.	G1/S trans. of mitotic cell cycle / ubiquitin-dependent protein catabolic process / apoptosis
<i>PLEKHA3</i>	Pleckstrin homology domain-containing family A member 3	-2,0	-1,9	?
<i>GCLM</i>	Glutamate--cysteine ligase regulatory subunit	-2,0	-2,1	cysteine metabolic proc. / glutathione metabolic process / neg. regulation of apoptosis / regulation of blood vessel size
<i>NR1D2</i>	Nuclear receptor subfamily 1 group D member 2	-2,0	-1,4	transcription
<i>INHBB</i>	Inhibin beta B chain precursor	-2,0	-1,9	ovarian follicle development / defense response / cell differentiation
<i>SKP1A</i>	S-phase kinase-associated protein 1	-2,0	n.s.	ubiquitin-dependent protein catabolic process / positive regulation of ubiquitin-protein ligase activity during mitotic cell cycle
<i>AP3S1</i>	AP-3 complex subunit sigma-1	-2,0	n.s.	intracellular protein transport / insulin receptor signaling pathway / vesicle-mediated transport
<i>JAG1</i>	Protein jagged-1 precursor	-2,0	-1,5	angiogenesis / cell fate determination / regulation of proliferation / Notch signaling pathway
<i>GDF15</i>	Growth/differentiation factor 15 precursor	-1,8	-3,0	transforming growth factor beta receptor signaling pathway / cell-cell signaling
<i>ADRB3</i>	Beta-3 adrenergic receptor	-1,2	-2,4	G-protein coupled receptor prot. signaling pathway energy reserve metabolic process/ neg. regulation of multicellular organism growth
<i>AXL</i>	Tyrosine-protein kinase receptor UFO precursor	n.s.	-2,4	protein amino acid phosphorylation / signal transduct.(stimulation of cell proliferation)
<i>SLC11A2</i>	Natural resistance-associated macrophage protein 2	n.s.	-2,3	cobalt ion transport / iron ion transport
<i>CDKN1A</i>	Cyclin-dependent kinase inhibitor 1	n.s.	-2,3	G1/S transition of mitotic cell cycle / G2/M transition of mitotic cell cycle / cell cycle arrest
<i>EIF2A</i>	Eukaryotic translation initiation factor 2A	-1,6	-2,2	regulation of translation / protein amino acid phosphorylation / ribosome assembly
<i>RPP40</i>	Ribonuclease P protein subunit p40	n.s.	-2,2	tRNA processing
<i>NDUFB5</i>	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 5, mitochondrial precursor	n.s.	-2,0	mitochondrial electron transport, NADH to ubiquinone
<i>HIGD1A</i>	HIG1 domain family member 1A	n.s.	-2,0	response to stress

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