

Additional File 10. Common down-regulated genes in cells exposed to silver-NP-hydrogel for 24h and 48 h. Fold-change is logarithmic ratio (\log_2 ratio) to expression level in control.

GeneName	Description	Fold-change (log₂ ratio)(24h)	Fold-change (log₂ratio)(48h)
DLC1	Homo sapiens deleted in liver cancer 1 (DLC1), mRNA [NM_182643]	-2.870	-2.473
LFNG	Homo sapiens LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase (LFNG), mRNA [NM_001040167]	-2.339	-2.134
IL17RB	Homo sapiens interleukin 17 receptor B (IL17RB), mRNA [NM_018725]	-2.308	-2.044
GPX1	Homo sapiens glutathione peroxidase 1 (GPX1), mRNA [NM_201397]	-1.940	-1.957
PLCXD3	Homo sapiens phosphatidylinositol-specific phospholipase C, X domain containing 3 (PLCXD3), mRNA [NM_001005473]	-1.918	-2.403
ADRA2A	Homo sapiens adrenergic, alpha-2A-, receptor (ADRA2A), mRNA [NM_000681]	-2.113	-1.904
TNFRSF25	Homo sapiens tumor necrosis factor receptor superfamily, member 25 (TNFRSF25), mRNA [NM_148965]	-1.829	-1.987
SPATA9	Homo sapiens cDNA FLJ35906 fis, clone TESTI2009727. [AK093225]	-1.776	-1.946
NOX4	Homo sapiens NADPH oxidase 4 (NOX4), mRNA [NM_016931]	-2.216	-1.755
DLX2	Homo sapiens distal-less homeobox 2 (DLX2), mRNA [NM_004405]	-1.721	-2.128
SNHG10	Homo sapiens small nucleolar RNA host gene 10 (non-protein coding) (SNHG10), non-coding RNA [NR_003138]	-1.677	-2.772
ITGA11	Homo sapiens integrin, alpha 11 (ITGA11), mRNA [NM_001004439]	-2.988	-1.647
AFAP1L2	Homo sapiens actin filament associated protein 1-like 2 (AFAP1L2), mRNA [NM_032550]	-2.262	-1.628
TFPI2	Homo sapiens tissue factor pathway inhibitor 2 (TFPI2), mRNA [NM_006528]	-1.619	-1.658
EDN2	Homo sapiens endothelin 2 (EDN2), mRNA [NM_001956]	-3.356	-1.610
GOLGA8E	Homo sapiens golgi autoantigen, golgin subfamily a, 8E (GOLGA8E), mRNA [NM_001012423]	-1.600	-2.086
LOC100132439	Homo sapiens similar to Protein FAM27E3 (LOC100132439), mRNA [XM_001719283]	-1.575	-1.603
COL9A3	Homo sapiens collagen, type IX, alpha 3 (COL9A3), mRNA [NM_001853]	-1.993	-1.571
ODAM	Homo sapiens odontogenic, ameloblast associated (ODAM), mRNA [NM_017855]	-1.619	-1.564
MGC3207	Homo sapiens translation initiation factor eIF-2B subunit alpha/beta/delta-like protein (MGC3207), mRNA [NM_001031727]	-1.560	-1.751
ZNF594	Homo sapiens zinc finger protein 594 (ZNF594), mRNA [NM_032530]	-1.875	-1.547
E2F8	Homo sapiens E2F transcription factor 8 (E2F8), mRNA [NM_024680]	-2.073	-1.541
LOC392335	Homo sapiens misc_RNA (LOC392335), miscRNA [XR_037043]	-1.534	-2.181
C10orf140	Homo sapiens chromosome 10 open reading frame 140 (C10orf140), mRNA [NM_207371]	-1.532	-2.500
ID2	Homo sapiens inhibitor of DNA binding 2, dominant negative helix-loop-helix protein (ID2), mRNA [NM_002166]	-1.529	-3.424
C18orf56	Homo sapiens chromosome 18 open reading frame 56 (C18orf56), mRNA	-2.574	-1.507

	[NM_001012716]		
KIAA0802	Homo sapiens KIAA0802 (KIAA0802), mRNA [NM_015210]	-1.486	-2.011
CDC14A	Homo sapiens CDC14 cell division cycle 14 homolog A (CDC14A), mRNA [NM_003672]	-1.478	-3.711
LOC653071	Homo sapiens similar to CG32820-PA, isoform A, mRNA (cDNA clone IMAGE:4812880),[BC068588]	-1.476	-3.032
GPM6B	Homo sapiens glycoprotein M6B (GPM6B), mRNA [NM_001001996]	-1.466	-1.576
COL15A1	Homo sapiens collagen, type XV, alpha 1 (COL15A1), mRNA [NM_001855]	-1.503	-1.463
NPTX1	Homo sapiens neuronal pentraxin I (NPTX1), mRNA [NM_002522]	-1.528	-1.457
C1orf133	Homo sapiens chromosome 1 open reading frame 133 (C1orf133), non-coding RNA [NR_024337]	-1.630	-1.454
MYLK2	Homo sapiens myosin light chain kinase 2 (MYLK2), mRNA [NM_033118]	-1.519	-1.444
MGC16121	Homo sapiens hypothetical protein MGC16121, mRNA (cDNA clone IMAGE:3627113), complete cds. [BC007360]	-2.590	-1.418
LOC203510	Homo sapiens similar to hCG1644442 (LOC203510), mRNA [XM_001719132]	-1.412	-2.524
C15orf23	Homo sapiens chromosome 15 open reading frame 23 (C15orf23),mRNA [NM_001142761]	-1.411	-1.421
LOC344178	Homo sapiens similar to hCG1794703 (LOC344178), mRNA [XM_001721796]	-1.398	-3.203
PL-5283	Homo sapiens PL-5283 protein (PL-5283), mRNA [NM_001130929]	-1.398	-1.705
LOC100128519	Homo sapiens misc_RNA (LOC100128519), miscRNA [XR_038473]	-1.396	-2.967
RASGRP1	Homo sapiens RAS guanyl releasing protein 1 (calcium and DAG-regulated) (RASGRP1), mRNA [NM_005739]	-2.079	-1.390
LGR6	Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 6 (LGR6), mRNA [NM_001017403]	-1.386	-1.405
USP11	Homo sapiens ubiquitin specific peptidase 11 (USP11), mRNA [NM_004651]	-1.648	-1.382
LOC340508	Homo sapiens hypothetical protein LOC340508 (LOC340508), non-coding RNA [NR_002942]	-1.572	-1.367
SLCO1C1	Homo sapiens solute carrier organic anion transporter family, member 1C1 (SLCO1C1), mRNA [NM_017435]	-1.362	-1.644
FGFBP3	Homo sapiens fibroblast growth factor binding protein 3 (FGFBP3), mRNA [NM_152429]	-1.463	-1.349
KANK4	Homo sapiens KN motif and ankyrin repeat domains 4 (KANK4), mRNA [NM_181712]	-1.336	-1.670
KLRC1	Homo sapiens killer cell lectin-like receptor subfamily C, member 1 (KLRC1), mRNA [NM_007328]	-2.133	-1.335
LOC791120	Homo sapiens hypothetical LOC791120 (LOC791120), non-coding RNA [NR_015357]	-1.709	-1.330
C13orf33	Homo sapiens chromosome 13 open reading frame 33 (C13orf33), mRNA [NM_032849]	-1.400	-1.321
LOC729983	Homo sapiens hypothetical LOC729983 (LOC729983), mRNA [XM_001718065]	-1.313	-1.584
FAM179A	Homo sapiens family with sequence similarity 179, member A (FAM179A), mRNA [NM_199280]	-1.311	-2.160

LOC730834	DB090170 TESTI4 Homo sapiens cDNA clone TESTI4038997 5', mRNA sequence [DB090170]	-1.305	-1.923
HOXC8	Homo sapiens homeobox C8 (HOXC8), mRNA [NM_022658]	-2.360	-1.303
IGFBP5	Homo sapiens insulin-like growth factor binding protein 5 (IGFBP5), mRNA [NM_000599]	-1.301	-2.339
FAM83D	Homo sapiens family with sequence similarity 83, member D (FAM83D), mRNA [NM_030919]	-1.366	-1.300
KAL1	Homo sapiens Kallmann syndrome 1 sequence (KAL1), mRNA [NM_000216]	-1.562	-1.272
ELP2P	Homo sapiens endozepine-like peptide 2 pseudogene (ELP2P), non-coding RNA [NR_024120]	-1.255	-1.322
CCDC74B	Homo sapiens coiled-coil domain containing 74B (CCDC74B), mRNA [NM_207310]	-1.250	-1.815
EID2	Homo sapiens EP300 interacting inhibitor of differentiation 2 (EID2), mRNA [NM_153232]	-1.248	-1.251
CCIN	Homo sapiens calicin (CCIN), mRNA [NM_005893]	-1.396	-1.247
CIT	Homo sapiens citron (rho-interacting, serine/threonine kinase 21) (CIT), mRNA [NM_007174]	-1.291	-1.242
HMGB2	Homo sapiens high-mobility group box 2 (HMGB2), mRNA [NM_002129]	-1.239	-1.322
FAM100B	Homo sapiens family with sequence similarity 100, member B (FAM100B), mRNA [NM_182565]	-1.236	-1.337
FGF18	Homo sapiens fibroblast growth factor 18 (FGF18), mRNA [NM_003862]	-1.233	-1.396
IGFL2	Homo sapiens IGF-like family member 2 (IGFL2), mRNA [NM_001002915]	-1.393	-1.227
HSD11B2	Homo sapiens hydroxysteroid (11-beta) dehydrogenase 2 (HSD11B2), mRNA [NM_000196]	-1.219	-1.944
NR4A2	Homo sapiens nuclear receptor subfamily 4, group A, member 2 (NR4A2), mRNA [NM_006186]	-1.216	-1.327
THAP2	Homo sapiens THAP domain containing, apoptosis associated protein 2 (THAP2), mRNA [NM_031435]	-1.205	-1.408
ABCD4	Homo sapiens ATP-binding cassette, sub-family D (ALD), member 4 (ABCD4), mRNA [NM_005050]	-1.195	-1.526
LOC338620	Homo sapiens hypothetical protein LOC338620, mRNA (cDNA clone IMAGE:6023208), partial cds. [BC043009]	-1.227	-1.189
TXNIP	Homo sapiens thioredoxin interacting protein (TXNIP), mRNA [NM_006472]	-1.185	-1.882
ADAMTS3	Homo sapiens ADAM metalloproteinase with thrombospondin type 1 motif, 3 (ADAMTS3), mRNA [NM_014243]	-1.184	-1.201
NMU	Homo sapiens neuromedin U (NMU), mRNA [NM_006681]	-1.419	-1.180
DLX4	Homo sapiens distal-less homeobox 4 (DLX4), mRNA [NM_138281]	-1.543	-1.179
LOC100130171	Homo sapiens misc_RNA (LOC100130171), miscRNA [XR_038676]	-1.173	-2.243
ITM2B	Homo sapiens integral membrane protein 2B (ITM2B), mRNA [NM_021999]	-1.167	-1.773
MGC12935	Homo sapiens hypothetical protein MGC12935, mRNA (cDNA clone IMAGE:4309284), [BC004565]	-1.464	-1.158
GNGT1	Homo sapiens guanine nucleotide binding protein (G protein), gamma transducing activity polypeptide 1 (GNGT1), mRNA [NM_021955]	-1.339	-1.156

GCNT1	Homo sapiens glucosaminyl (N-acetyl) transferase 1, core 2 (beta-1,6-N-acetylglucosaminyltransferase) (GCNT1), mRNA [NM_001490]	-1.404	-1.148
IKZF4	Homo sapiens IKAROS family zinc finger 4 (Eos) (IKZF4), mRNA [NM_022465]	-1.951	-1.148
IGF1	Homo sapiens insulin-like growth factor 1 (somatomedin C) (IGF1), mRNA [NM_000618]	-1.146	-1.263
ANO8	Homo sapiens anoctamin 8 (ANO8), mRNA [NM_020959]	-1.143	-1.702
GPER	Homo sapiens G protein-coupled estrogen receptor 1 (GPER),mRNA [NM_001039966]	-1.143	-1.661
MICALCL	Homo sapiens MICAL C-terminal like (MICALCL), mRNA [NM_032867]	-1.143	-2.147
GNRH1	Homo sapiens gonadotropin-releasing hormone 1 (luteinizing-releasing hormone) (GNRH1), mRNA [NM_000825]	-1.140	-1.216
TMC8	Homo sapiens transmembrane channel-like 8 (TMC8), mRNA [NM_152468]	-1.134	-1.466
GABRE	Homo sapiens gamma-aminobutyric acid (GABA) A receptor, epsilon (GABRE), mRNA [NM_004961]	-1.567	-1.132
RBP1	Homo sapiens retinol binding protein 1, cellular (RBP1), mRNA [NM_002899]	-1.130	-1.618
LOC100129397	Homo sapiens cDNA FLJ38522 fis, clone HCHON2000818. [AK095841]	-1.129	-1.435
ZNF486	Homo sapiens zinc finger protein 486 (ZNF486), mRNA [NM_052852]	-1.129	-1.874
SVIP	Homo sapiens small VCP/p97-interacting protein (SVIP), mRNA [NM_148893]	-1.126	-1.495
FLJ45244	Homo sapiens hypothetical locus FLJ45244 (FLJ45244), non-coding RNA [NR_015415]	-1.122	-1.148
MEX3A	Homo sapiens mex-3 homolog A (C. elegans) (MEX3A), mRNA [NM_001093725]	-1.383	-1.122
PLAGL2	Homo sapiens pleiomorphic adenoma gene-like 2 (PLAGL2), mRNA [NM_002657]	-1.116	-1.382
RIBC2	Homo sapiens RIB43A domain with coiled-coils 2 (RIBC2), mRNA [NM_015653]	-1.115	-1.183
KIF18B	Homo sapiens hypothetical protein LOC146909, mRNA (cDNA clone IMAGE:4418755), [BC048263]	-1.114	-1.704
GNG11	Homo sapiens guanine nucleotide binding protein (G protein), gamma 11 (GNG11), mRNA [NM_004126]	-1.226	-1.107
CCDC34	Homo sapiens coiled-coil domain containing 34 (CCDC34),mRNA [NM_080654]	-1.105	-1.368
PDGFRB	Homo sapiens platelet-derived growth factor receptor, beta polypeptide (PDGFRB), mRNA [NM_002609]	-1.104	-2.142
KCTD16	Homo sapiens potassium channel tetramerisation domain containing 16 (KCTD16), mRNA [NM_020768]	-1.103	-1.503
RPL32P3	Homo sapiens ribosomal protein L32 pseudogene 3 (RPL32P3), non-coding RNA [NR_003111]	-1.097	-1.831
SEPW1	Homo sapiens selenoprotein W, 1 (SEPW1), mRNA [NM_003009]	-2.313	-1.092
SULF2	Homo sapiens sulfatase 2 (SULF2), mRNA [NM_018837]	-1.251	-1.091
LOC339483	Homo sapiens cDNA FLJ38790 fis, clone LIVER2002842. [AK096109]	-1.860	-1.083
C15orf5	Homo sapiens chromosome 15 open reading frame 5, mRNA (cDNA clone	-1.127	-1.081

	MGC:97283 IMAGE:7262532), [BC069765]		
FGF12	Homo sapiens fibroblast growth factor 12 (FGF12), mRNA [NM_004113]	-1.984	-1.076
EFCAB10	Homo sapiens cDNA clone IMAGE:6616931, partial cds. [BC062748]	-1.074	-2.506
TYMS	Homo sapiens thymidylate synthetase (TYMS), mRNA [NM_001071]	-1.411	-1.074
FLJ10357	Homo sapiens hypothetical protein FLJ10357 (FLJ10357), mRNA [NM_018071]	-1.212	-1.070
KIAA1524	Homo sapiens KIAA1524 (KIAA1524), mRNA [NM_020890]	-1.068	-1.643
MATN3	Homo sapiens matrilin 3 (MATN3), mRNA [NM_002381]	-1.068	-1.069
TRIM66	Homo sapiens tripartite motif-containing 66 (TRIM66), mRNA [NM_014818]	-1.067	-1.898
FAM64A	Homo sapiens family with sequence similarity 64, member A (FAM64A), mRNA [NM_019013]	-1.272	-1.062
MYB	Homo sapiens v-myb myeloblastosis viral oncogene homolog (avian) (MYB), mRNA [NM_005375]	-1.416	-1.062
C18orf55	Homo sapiens chromosome 18 open reading frame 55 (C18orf55), mRNA [NM_014177]	-1.056	-1.585
C5orf13	Homo sapiens chromosome 5 open reading frame 13 (C5orf13), mRNA [NM_004772]	-1.054	-1.098
MKX	Homo sapiens mohawk homeobox (MKX), mRNA [NM_173576]	-1.054	-1.110
ZBED2	Homo sapiens zinc finger, BED-type containing 2 (ZBED2), mRNA [NM_024508]	-2.175	-1.050
ZNF284	Zinc finger protein 284 [Source:UniProtKB/ Swiss-Prot;Acc:Q2VY69] [ENST00000328297]	-1.049	-1.219
LOC100133154	Homo sapiens hypothetical protein LOC100133154 (LOC100133154), mRNA [XM_001714925]	-2.075	-1.048
RNF214	Homo sapiens ring finger protein 214 (RNF214), mRNA [NM_001077239]	-1.048	-1.125
TMEM129	Homo sapiens transmembrane protein 129 (TMEM129), mRNA [NM_138385]	-1.048	-1.587
TUBA8	Homo sapiens tubulin, alpha 8 (TUBA8), mRNA [NM_018943]	-1.048	-1.142
MGC26597	Homo sapiens PIP5K1A pseudogene, mRNA (cDNA clone IMAGE:4828163). [BC028580]	-1.150	-1.046
RASSF5	Homo sapiens Ras association (RalGDS/AF-6) domain family member 5 (RASSF5), mRNA [NM_182663]	-1.045	-1.238
MAGEA1	Homo sapiens melanoma antigen family A, 1 (directs expression of antigen MZ2-E) (MAGEA1), mRNA [NM_004988]	-1.044	-2.361
NSBP1	Homo sapiens nucleosomal binding protein 1 (NSBP1), mRNA [NM_030763]	-1.043	-1.642
DEPDC7	Homo sapiens DEP domain containing 7 (DEPDC7), mRNA [NM_139160]	-1.042	-1.177
KIAA1466	Homo sapiens mRNA for KIAA1466 protein, partial cds. [AB040899]	-1.040	-1.343
NCRNA00115	Homo sapiens non-protein coding RNA 115 (NCRNA00115), non-coding RNA [NR_024321]	-2.292	-1.038
SHC3	Homo sapiens SHC (Src homology 2 domain containing) transforming protein 3 (SHC3), mRNA [NM_016848]	-1.037	-1.106
MYCBP	Homo sapiens c-myc binding protein (MYCBP), mRNA [NM_012333]	-1.037	-1.100
SALL2	Homo sapiens sal-like 2 (Drosophila) (SALL2), mRNA [NM_005407]	-1.191	-1.034
ZCRB1	Homo sapiens zinc finger CCHC-type and RNA binding motif 1 (ZCRB1),	-1.034	-1.903

	mRNA [NM_033114]		
LOC390413	Homo sapiens misc_RNA (LOC390413), miscRNA [XR_018341]	-1.032	-2.125
LOC729684	Homo sapiens misc_RNA (LOC729684), miscRNA [XR_039360]	-1.026	-1.658
PLA2R1	Human 180 kDa transmembrane PLA2 receptor mRNA, complete cds. [U17033]	-1.025	-2.230
IRAK1BP1	Homo sapiens interleukin-1 receptor-associated kinase 1 binding protein 1 (IRAK1BP1), mRNA [NM_001010844]	-1.024	-1.080
CENPK	Homo sapiens centromere protein K (CENPK), mRNA [NM_022145]	-1.023	-1.724
LOC389992	Homo sapiens similar to hCG2040259 (LOC389992), mRNA [XM_001720568]	-1.023	-2.597
BIC	Homo sapiens BIC transcript (BIC), non-coding RNA [NR_001458]	-1.019	-1.059
RACGAP1	Homo sapiens Rac GTPase activating protein 1 (RACGAP1),mRNA [NM_013277]	-1.067	-1.014
RAVER2	Homo sapiens cDNA FLJ10770 fis, clone NT2RP4000159. [AK001632]	-1.338	-1.013
AP4S1	Homo sapiens adaptor-related protein complex 4, sigma 1 subunit (AP4S1), mRNA [NM_001128126]	-1.010	-1.152
BEND3	Homo sapiens BEN domain containing 3 (BEND3), mRNA [NM_001080450]	-1.006	-1.488
TMSB15A	Homo sapiens thymosin-like 8 (TMSL8), mRNA [NM_021992]	-2.391	-1.006
LOC646993	Homo sapiens similar to high-mobility group box 3 (LOC646993), mRNA [XM_929965]	-1.005	-1.516
INSL4	Homo sapiens insulin-like 4 (placenta) (INSL4), mRNA [NM_002195]	-1.151	-1.003
LOC401588	Homo sapiens hypothetical LOC401588 (LOC401588), non-coding RNA [NR_015378]	-1.132	-1.003
LOC402360	Homo sapiens similar to hCG1742476 (LOC402360), mRNA [XM_001722407]	-1.002	-1.188