

SUPPLEMENTARY TABLE S3. CELL CYCLE GENES UPREGULATED IN IMMORTALIZED MESENCHYMAL STEM CELLS COMPARED WITH CONTROL MESENCHYMAL STEM CELLS

<i>Accession</i>	<i>Symbol</i>	<i>Fold</i>	<i>Definition</i>
NM_014622.4	LOH11CR2A	18.01	<i>Homo sapiens</i> loss of heterozygosity, 11, chromosomal region 2, gene A (LOH11CR2A), transcript variant 1, mRNA.
NM_031423.3	<i>NUF2</i>	9.449	<i>Homo sapiens</i> NUF2, NDC80 kinetochore complex component, homolog (S. cerevisiae) (NUF2), transcript variant 2, mRNA.
NM_019619.2	<i>PARD3</i>	8.591	<i>Homo sapiens</i> par-3 partitioning defective 3 homolog (C. elegans) (PARD3), mRNA.
NM_003579.2	RAD54L	8.471	<i>Homo sapiens</i> RAD54-like (S. cerevisiae) (RAD54L), mRNA.
NM_052911.1	<i>ESCO1</i>	7.309	<i>Homo sapiens</i> establishment of cohesion 1 homolog 1 (S. cerevisiae) (ESCO1), mRNA.
NM_033246.2	PML	6.066	<i>Homo sapiens</i> promyelocytic leukemia (PML), transcript variant 7, mRNA.
NM_004091.2	<i>E2F2</i>	6.038	<i>Homo sapiens</i> E2F transcription factor 2 (E2F2), mRNA.
NM_181800.1	<i>UBE2C</i>	5.848	<i>Homo sapiens</i> ubiquitin-conjugating enzyme E2C (UBE2C), transcript variant 3, mRNA.
NM_018492.2	<i>PBK</i>	5.601	<i>Homo sapiens</i> PDZ binding kinase (PBK), mRNA.
NM_004217.1	<i>AURKB</i>	5.241	<i>Homo sapiens</i> aurora kinase B (AURKB), mRNA.
NM_001790.3	CDC25C	4.804	<i>Homo sapiens</i> cell division cycle 25 homolog C (S. pombe) (CDC25C), transcript variant 1, mRNA.
NM_152524.3	<i>SGOL2</i>	4.711	<i>Homo sapiens</i> shugoshin-like 2 (S. pombe) (SGOL2), mRNA.
NM_001255.1	CDC20	4.681	<i>Homo sapiens</i> CDC20 cell division cycle 20 homolog (S. cerevisiae) (CDC20), mRNA.
NM_018131.3	CEP55	4.643	<i>Homo sapiens</i> centrosomal protein 55 kDa (CEP55), mRNA.
NM_002263.2	KIFC1	4.635	<i>Homo sapiens</i> kinesin family member C1 (KIFC1), mRNA.
NM_002417.2	<i>MKI67</i>	4.499	<i>Homo sapiens</i> antigen identified by monoclonal antibody Ki-67 (MKI67), mRNA.
NM_003504.3	CDC45L	4.491	<i>Homo sapiens</i> CDC45 cell division cycle 45-like (S. cerevisiae) (CDC45L), mRNA.
NM_004219.2	PTTG1	4.42	<i>Homo sapiens</i> pituitary tumor-transforming 1 (PTTG1), mRNA.
NM_001789.2	CDC25A	4.358	<i>Homo sapiens</i> cell division cycle 25A (CDC25A), transcript variant 1, mRNA.
NM_181803.1	UBE2C	4.225	<i>Homo sapiens</i> ubiquitin-conjugating enzyme E2C (UBE2C), transcript variant 6, mRNA.
NM_031966.2	CCNB1	4.162	<i>Homo sapiens</i> cyclin B1 (CCNB1), mRNA.
NM_005192.2	CDKN3	4.113	<i>Homo sapiens</i> cyclin-dependent kinase inhibitor 3 (CDK2-associated dual specificity phosphatase) (CDKN3), mRNA.
NM_004523.2	<i>KIF11</i>	4.09	<i>Homo sapiens</i> kinesin family member 11 (KIF11), mRNA.
NM_016359.2	NUSAP1	3.989	<i>Homo sapiens</i> nucleolar and spindle associated protein 1 (NUSAP1), transcript variant 1, mRNA.
NM_018136.2	<i>ASPM</i>	3.935	<i>Homo sapiens</i> asp (abnormal spindle)-like, microcephaly associated (Drosophila) (ASPM), mRNA.
NM_007301.2	<i>BRCA1</i>	3.913	<i>Homo sapiens</i> breast cancer 1, early onset (BRCA1), transcript variant BRCA1-delta15-17, mRNA.
NM_198434.1	AURKA	3.895	<i>Homo sapiens</i> aurora kinase A (AURKA), transcript variant 3, mRNA.
NM_016343.3	<i>CENPF</i>	3.814	<i>Homo sapiens</i> centromere protein F, 350/400ka (mitosin) (CENPF), mRNA.
NM_016426.4	GTSE1	3.698	<i>Homo sapiens</i> G-2 and S-phase expressed 1 (GTSE1), mRNA.
NM_016195.2	<i>MPHOSPH1</i>	3.651	<i>Homo sapiens</i> M-phase phosphoprotein 1 (MPHOSPH1), mRNA.
NM_080668.2	CDCA5	3.628	<i>Homo sapiens</i> cell division cycle associated 5 (CDCA5), mRNA.
NM_182776.1	MCM7	3.608	<i>Homo sapiens</i> minichromosome maintenance complex component 7 (MCM7), transcript variant 2, mRNA.
NM_012112.4	<i>TPX2</i>	3.597	<i>Homo sapiens</i> TPX2, microtubule-associated, homolog (Xenopus laevis) (TPX2), mRNA.
NM_001012413.1	SGOL1	3.533	<i>Homo sapiens</i> shugoshin-like 1 (S. pombe) (SGOL1), transcript variant C1, mRNA.
NM_004701.2	CCNB2	3.451	<i>Homo sapiens</i> cyclin B2 (CCNB2), mRNA.
NM_005563.3	<i>STMN1</i>	3.371	<i>Homo sapiens</i> stathmin 1/oncoprotein 18 (STMN1), transcript variant 3, mRNA.
NM_198434.1	AURKA	3.368	<i>Homo sapiens</i> aurora kinase A (AURKA), transcript variant 3, mRNA.
NM_001827.1	<i>CKS2</i>	3.287	<i>Homo sapiens</i> CDC28 protein kinase regulatory subunit 2 (CKS2), mRNA.
NM_001826.1	<i>CKS1B</i>	3.27	<i>Homo sapiens</i> CDC28 protein kinase regulatory subunit 1B (CKS1B), mRNA.
NM_013277.2	RACGAP1	3.224	<i>Homo sapiens</i> Rac GTPase activating protein 1 (RACGAP1), mRNA.
NM_020242.1	KIF15	3.214	<i>Homo sapiens</i> kinesin family member 15 (KIF15), mRNA.
NM_003981.2	PRC1	3.21	<i>Homo sapiens</i> protein regulator of cytokinesis 1 (PRC1), transcript variant 1, mRNA.
NM_001012271.1	BIRC5	3.172	<i>Homo sapiens</i> baculoviral IAP repeat-containing 5 (survivin) (BIRC5), transcript variant 3, mRNA.
NM_002497.2	NEK2	3.135	<i>Homo sapiens</i> NIMA (never in mitosis gene a)-related kinase 2 (NEK2), mRNA.
NM_000465.1	BARD1	3.124	<i>Homo sapiens</i> BRCA1 associated RING domain 1 (BARD1), mRNA.
NM_004358.3	CDC25B	3.062	<i>Homo sapiens</i> cell division cycle 25 homolog B (S. pombe) (CDC25B), transcript variant 2, mRNA.

(continued)

SUPPLEMENTARY TABLE S3. (CONTINUED)

<i>Accession</i>	<i>Symbol</i>	<i>Fold</i>	<i>Definition</i>
NM_018101.2	<i>CDCA8</i>	3.034	<i>Homo sapiens</i> cell division cycle associated 8 (CDCA8), mRNA.
NM_001237.2	<i>CCNA2</i>	2.911	<i>Homo sapiens</i> cyclin A2 (CCNA2), mRNA.
NM_014708.3	<i>KNTC1</i>	2.908	<i>Homo sapiens</i> kinetochore associated 1 (KNTC1), mRNA.
NM_004526.2	<i>MCM2</i>	2.835	<i>Homo sapiens</i> MCM2 minichromosome maintenance deficient 2, mitotin (<i>S. cerevisiae</i>) (MCM2), mRNA.
NM_033379.2	<i>CDC2</i>	2.754	<i>Homo sapiens</i> cell division cycle 2, G1 to S and G2 to M (CDC2), transcript variant 2, mRNA.
NM_001761.1	<i>CCNF</i>	2.735	<i>Homo sapiens</i> cyclin F (CCNF), mRNA.
NM_004856.4	<i>KIF23</i>	2.729	<i>Homo sapiens</i> kinesin family member 23 (KIF23), transcript variant 2, mRNA.
NM_001798.2	<i>CDK2</i>	2.682	<i>Homo sapiens</i> cyclin-dependent kinase 2 (CDK2), transcript variant 1, mRNA.
NM_006231.2	<i>POLE</i>	2.616	<i>Homo sapiens</i> polymerase (DNA directed), epsilon (POLE), mRNA.
NM_015895.3	<i>GMNN</i>	2.419	<i>Homo sapiens</i> geminin, DNA replication inhibitor (GMNN), mRNA.
NM_002388.3	<i>MCM3</i>	2.311	<i>Homo sapiens</i> MCM3 minichromosome maintenance deficient 3 (<i>S. cerevisiae</i>) (MCM3), mRNA.
NM_005132.1	<i>REC8L1</i>	2.25	<i>Homo sapiens</i> REC8-like 1 (yeast) (REC8L1), mRNA.
NM_012222.1	<i>MUTYH</i>	2.19	<i>Homo sapiens</i> mutY homolog (<i>E. coli</i>) (MUTYH), mRNA.
NM_001274.2	<i>CHEK1</i>	2.111	<i>Homo sapiens</i> CHK1 checkpoint homolog (<i>S. pombe</i>) (CHEK1), mRNA.
NM_001070.3	<i>TUBG1</i>	2.098	<i>Homo sapiens</i> tubulin, gamma 1 (TUBG1), mRNA.
NM_181799.1	<i>UBE2C</i>	2.051	<i>Homo sapiens</i> ubiquitin-conjugating enzyme E2C (UBE2C), transcript variant 2, mRNA.
NM_002198.1	<i>IRF1</i>	2.019	<i>Homo sapiens</i> interferon regulatory factor 1 (IRF1), mRNA.
NM_001800.3	<i>CDKN2D</i>	2.006	<i>Homo sapiens</i> cyclin-dependent kinase inhibitor 2D (p19, inhibits CDK4) (CDKN2D), transcript variant 1, mRNA.
NM_005030.3	<i>PLK1</i>	2.003	<i>Homo sapiens</i> polo-like kinase 1 (<i>Drosophila</i>) (PLK1), mRNA.

Italic-nonbold gene symbols indicate common upregulated genes in p53 knockdown and immortalized MSCs compared with control MSCs. Italic-bold gene symbols indicate upregulated genes only in immortalized MSCs, but not in p53 knockdown MSCs compared with control MSCs.

MSCs, mesenchymal stem cells.