

Table S4A. qPCR primers for human genes				
Gene symbol	GenBank Reference	Name of encoding protein	Forward Primer	Reverse Primer
18S	X03205.1	18s Ribosomal protein	CGGCTACCACATCCAAGGAA	GCTGGAATTACCGCGGCT
ABCA1	NM_005502	ATP-binding cassette, sub-family A , member 1	ACATCCTGAAGCCAATCCTGA	CTCCTGTGCGATGTCACTCC
ABCG1	NM_207174	ATP-binding cassette, sub-family G member 1	GGGGTCGCTCCATCATTG	TTCCCCGGTACACACATTGTC
ACTB	NM_001101	Beta-actin	CATGTACGTTGCTATCCAGGC	CTCCTTAATGTCACGCACGAT
APOB	NM_000384	Apolipoprotein B	ACACACTGGACGCTAAGAGGA	ACTTGTGCTACCATCCCATACT
APOE	NM_000041	Apolipoprotein E	GTTGCTGGTCACATTCCTGG	GCAGGTAATCCCAAAAGCGAC
APP	NM_201414	Amyloid precursor protein	CAAGCAGTGCAAGACCCATC	AGAAGGGCATCACTTACAAACTC
ATM	NM_000051	A-T mutated protein	TTGATCTTGTGCCTTGGCTAC	TATGGTGTACGTTCCCATGT
ATR	NM_001184	A-T and Rad3 related protein	TCCCTTGAATACAGTGGCCTA	TCCTTGAAAGTACGGCAGTTC
BACE1	NM_138971	Beta-secretase 1	ACCAACCTTCGTTTGCCCAA	TCTCCTAGCCAGAAACCATCAG
BACE2	NM_138991	Beta-secretase 2	AGACACGTACTTTGACACAGAGA	TGGGGATGGTGACGAGGTC
CASP3	NM_004346	Caspase-3	GAAATTGTGGAATTGATGCGTGA	CTACAACGATCCCCTCTGAAAAA
CCNA1	NM_003914	Cyclin A1	ACATGGATGAACTAGAGCAGGG	GAGTGTGCCGGTGTCTACTT
CCNA2	NM_001237	Cyclin A2	TGGAAAGCAAACAGTAAACAGCC	GGGCATCTTCACGCTCTATTT
CCNB1	NM_031966	Cyclin B1	AATAAGGCGAAGATCAACATGGC	TTTGTTACCAATGTCCCAAGAG
CCNB2	NM_004701	Cyclin B2	TGCTCTGCAAAATCGAGGACA	GCCAATCCACTAGGATGGCA
CCND1	NM_053056	Cyclin D1	TGGAGCCCGTGAAAAAGAGC	TCTCCTCATCTTAGAGGCCAC
CCND2	NM_001759	Cyclin D2	CTGTCTCTGATCCGCAAGCAT	GGTGGGTACATGGCAAACCTAAA
CCND3	NM_001760	Cyclin D3	TACCCGCCATCCATGATCG	AGGCAGTCCACTTCAGTGC
CCNE1	NM_001238	Cyclin E1	GCCAGCCTTGGGACAATAATG	CTTGACGTTGAGTTTGGGT
CCNE2	NM_057749	Cyclin E2	TCAAGACGAAGTAGCCGTTTAC	TGACATCCTGGGTAGTTTTCTC
CCNH	NM_001239	Cyclin H	TGTTCCGGTGTAAAGCCAGCA	TCCTGGGGTGATATTCCATTACT

CDK4	NM_000075	Cyclin-dependent kinase 4	TCAGCACAGTTCGTGAGGTG	GTCCATCAGCCGGACAACAT
CDK5	NM_004935	Cyclin dependent kinase 5	GGGCCAAGCTGTACTCCAC	ACATCATTGCCGGGAAAAAGAG
CDK5R1	NM_003885	P35 protein/CDK5 Receptor	AGCAGCTACCAGAACAACATC	GGGCGAATGTGGACAGGTT
CDK6	NM_001145306	Cyclin-dependent kinase 6	TCTTCATTCACACCGAGTAGTGC	TGAGGTTAGACCATCTGGAAA
CDK7	NM_001799	Cyclin-dependent kinase 7	GGAGCCCCAATAGAGCTTATACA	TCCACACCTACACCATACATCC
CNPase	NM_033133	Marker for immature and mature OL, but not OPC	CTGCTAGAGTGCAAGACGCTC	GTGCCATCACGGTACTTGTCC
CSPG4	NM_001897	Chondroitin sulfate proteoglycans 4. a.k.a NG2	GCCACGTTGTCAGTCGATG	CCCATAGGGGACCTCTAGGG
E2F1	NM_005225	E2F transcription factor 1	ACGTGACGTGTCAGGACCT	GATCGGGCCTTGTGCTCTT
E2F2	NM_004091	E2F transcription factor 2	CGTCCTGAGTTCCCAACC	GCGAAGTGCATACCGAGTCTT
E2F3	NM_001949	E2F transcription factor 3	AGAAAGCGGTCATCAGTACCT	TGGACTTCGTAGTGCAGCTCT
E2F4	NM_001950	E2F transcription factor 4	CCTAGCTGTACGCCAGAAGC	TTTTTCTCGATTAGCCCGATACC
ERCC1	NM_202001	Excision repair cross-complementation group 1,	CCTTATTCCGATCTACACAGAGC	TATTCGGCGTAGGTCTGAGGG
ERCC2	NM_001130867	Excision repair cross-complementation group 2	AGAAGGTGATTGAAGAGCTTCG	ACCTCAGGGTGAATACACAAGT
ERCC3	NM_000122	Excision repair cross-complementation group 3	CTAACTGCCTACTCCTTGATGC	TCCATAGCTGACAGTACACAACCT
ERCC4	NM_005236	Excision repair cross-complementation group 4	GGAAGTCTCGACACTGACG	GCGAGGGAGGTGTTCAACTC
ERCC5	NM_000123	Excision repair cross-complementation group 5	GACAAGCCATCAAACTGCCT	AACTTGGGTAAGACTGGGTAGT
ERCC6	NM_000124	Excision repair cross-complementation group 6	GTGGAGAAGGAGTATCGGTCCG	GTGGCAGCTTGAGGGCTAAG
ERCC8	NM_000082	Excision repair cross-complementation group 8	AGCAAACACTGCTCATAATGGG	GAACTATTCCAGAGCCTCATTCCG
GAPDH	NM_001256799	Hypoxanthine Phosphoribosyltransferase 1	ACAACTTTGGTATCGTGAAGG	GCCATCACGCCACAGTTTC
GFAP	NM_001242376	Glial fibrillary acidic protein	AGGTCCATGTGGAGCTTGAC	GCCATTGCCTCATACTGCCT
GSK3B	NM_002093	Glycogen synthase kinase 3 beta	AGACGCTCCCTGTGATTTATGT	CCGATGGCAGATTCCAAAGG
HDAC1	NM_004964	Histone deacetylase 1	CCGCATGACTCATAATTTGCTG	ATTGGCTTTGTGAGGGCGATA
HDAC3	NM_003883	Histone deacetylase 3	GCAAGGCTTCACCAAGAGTCT	AGATGCGCCTGTGTAACGC

HDAC4	NM_006037	Histone deacetylase 4	GGCCACCGAATCTGAAC	GAACTCTGGTCAAGGGAAGTCTG
HDAC5	NM_001015053	Histone deacetylase 5	TCTTGTGCGAAGTCAAAGGAGC	GAGGGGAAGTCTGGTCCAAAG
HDAC6	NM_006044	Histone deacetylase 6	ACCCAGTGTCTCTATTCTC	CCTGGTCCAAGGCACATTGA
HDAC7	NM_001098416	Histone deacetylase 7	TGCCAGTCTTAATGACCAC	CACCTGGACGTGAGTTTTGAG
HDAC9	NM_058176	Histone deacetylase 9	GAATCCTCAGTCAGTAGCAGTTC	GGGGCAAACCGAAGTCTCAT
LDLR	NM_001195800	Low density lipoprotein receptor	ACCAACGAATGCTTGGACAAC	ACAGGCACTCGTAGCCGAT
LRP1	NM_002332	Low density lipoprotein receptor-related protein 1 (APOER)	AGCCAGCTATGCACCAACAC	CCTTGCAGGAGCGGTTATC
LRP1B	NM_018557	Low density lipoprotein receptor-related protein 1B	GTGCAACAAATGGCGATTGAC	GACACATACAGAACCGTTGGAAT
LRP2	NM_004525	Low density lipoprotein receptor-related protein 2 (megalin)	TATCCCTCGTGCTTATGTCTGT	TGAACTGGTAACCACCGCAG
LRP4	NM_002334	Low density lipoprotein receptor-related protein 4	ACCTACCTGTTCCCTCTTGA	GTCCTGCTCATCCGAGTCATC
LRP8	NM_033300	Low density lipoprotein receptor-related protein 8, apolipoprotein e receptor (APOER2)	CCCATCCCTAATCTTCACCAAC	CTAGTGCCACGACATTCTTGAG
LXRA	NM_001251934	NR1H3 mRNA for liver X receptor alpha, complete cds	CCTTCAGAACCACAGAGATCC	ACGCTGCATAGCTCGTTCC
LXRB	NM_007121	NR1H2 mRNA for liver X receptor beta, complete cds	GTGGACTTCGCTAAGCAAGTG	ATGATCTCGATAGTGGATGCCT
MAG	NM_002361	Myelin associated glycoprotein	GGTGTCTGGTACTTCAATAGCC	CTCTCGTGGACTACTTGGGTG
MAP2	NM_001039538	Microtubule associated protein 2	CTCAGCACCGCTAACAGAGG	CATTGGCGCTTCGGACAAG
MBP	X17289	Myelin basic protein	GTCCCTGAGCAGATTTAGCTG	GAATCCCTTGTGAGCCGATTT
MRE11A	NM_005590	MRE11 homolog A	ATCGGCCTGTCCAGTTTGAAA	TGCCATCTTGATAGTTCACCCAT
MyRF	NM_013279	Myelin regulatory factor	CAGTCCCAGTCAGACCGGA	CCCTTCTTACGCATGTTGTTAGC
NBN	NM_002485	Nijmegen Breakage Syndrome 1	CACTCACCTTGTATGGTATCAG	CTGCTTCTTGGACTCAACTGC
NeuN	NM_001082575	RBFOX3 RNA binding protein	TCGTAGAGGGACGGAAAATTGA	GCCGTTGGTGTAGGGGTTCT
NKx2.2	NM_002509	NK2 homeobox 2; OL-transcription factor	CCGGGCCGAGAAAGGTATG	GTTTGCCGTCCCTGACCAA

Olig1	NM_138983	Oligodendrocyte transcription factor 1	TACTATGCGGTTTCCCAGGC	GCTGAGTAGGGCAGGATGA
OLIG2	NM_005806	Oligodendrocyte transcription factor 2	CCAGAGCCCGATGACCTTTTT	CACTGCCTCCTAGCTTGTC
PCNA	NM_002592	Proliferating cell nuclear antigen	GCGTGAACCTCACCAGTATGT	TCTTCGGCCCTTAGTGAATGAT
PDRGRa	NM_006206	Platelet derived growth factor receptor α	TTTTTGTGACGGTCTTGGAAGT	TGTCTGAGTGTGGTTGAATAGC
PLP1	NM_001128834	Proteolipid protein 1	ACCTATGCCCTGACCGTTG	TGCTGGGGAAGGCAATAGACT
PMP22	NM_153321	Peripheral myelin protein 22	GATCCTGTCGATCATCTTCAGC	AGCACTCATCACGCACAGAC
PSD95	NM_001365	PSD95	CACAACCTCTTATCCCAGCAC	CATGGCTGTGGGGTAGTCG
PSEN1	NM_000021	Presenilin-1; a.k.a gamma-secretase 1	TGGCTACCATTAAGTCAGTCAGC	CCCACAGTCTCGGTATCTTCT
PSEN2	NM_012486	Presenilin-2; a.k.a gamma-secretase 2	CTGACCCTATGTCTGTAGTGG	CTTCGCTCCGTATTTGAGGGT
RAD50	NM_005732	RAD50 Homolog	TTTGTTGGACCCAATGGGG	CAGGAGGGAAATCTCCAGTACAA
RXRA	NM_002957	Retinoid X receptor, alpha	GACGGAGCTTGTGTCCAAGAT	AGTCAGGGTTAAAGAGGACGAT
RXRB	NM_021976	Retinoid X receptor, beta	ACGGCTATGTGCAATCTGC	CGGATGGTGCCTTTGAAGAA
S100B	NM_006272	S100 calcium binding protein B	TGGCCCTCATCGACGTTTTTC	ATGTTCAAAGAACTCGTGGCA
SOX 2	NM_003106	SRY-box 2	GCCGAGTGAAACTTTTGTGCG	GGCAGCGTGTACTTATCCTTCT
SOX10	NM_006941	SRY-box 10	CCTCACAGATCGCTACACC	CATATAGGAGAAGGCCGAGTAGA
Syn I	NM_006950	Synapsin I	AGTTCTTCGGAATGGGGTGAA	CAAACCTGCGGTAGTCTCCGTT
Syn II	NM_133625	Synapsin II	CGACTTCCAGGACATTGCCAG	AGCCTTGTAGTTGTTGCCAATC
TP53	NM_001126118	Tumor protein p53	CAGCACATGACGGAGGTTGT	TCATCCAAATACTCCACACGC
TUBB3	NM_006086	TUBB3 tubulin beta 3 class III	GGCCAAGGGTCACTACACG	GCAGTCGCAGTTTTCACACTC
VLDLR	NM_001018056	Very low density lipoprotein receptor	CTGGGTATGCGACGATGATG	CTTGGTGTGTATGACTGGCTG
XPA	NM_000380	Xeroderma Pigmentosum, Complementation Group A	CCAGGACCTGTTATGGAATTTGA	GCTTCTTGACTACCCCAAACCTC
XPC	NM_001145769	Xeroderma Pigmentosum, Complementation Group C;	TTGACCCGGCTGGTATTGTC	GTGCCCTTAGCAAAGGTTTCC

XRCC1	NM_006297	X-ray repair cross-complementing protein 1	TGTGGTCCTACAGTTGGAGAA	AAACATGCGAACGCGGTTG
XRCC4	NM_022406	X-ray repair cross-complementing protein 4	ATGTTGGTGAAGTGAAGAAAAGCA	GCAATGGTGTCCAAGCAATAAC
XRCC5	NM_021141	X-ray repair cross-complementing protein 5	GCACTGACAATCCCCTTTCTG	TCAATGCCTCCAGCAAATCAAA
XRCC6	NM_001469	X-ray repair cross-complementing protein 6	GCTAGAAGACCTGTTGCGGAA	TGTTGAGCTTCAGCTTTAACCTG

Table S4B. qPCR primers for mouse genes				
Gene symbol	GenBank Reference	Name of encoding protein	Forward Primer	Reverse Primer
Nefl	NM_010910.1	Neurofilament, light polypeptide	GGTGCTGAGATTTATGGAGGC	ATGGTTCCGATGCTGTAGGT
Map2	NM_001310634.1	Microtubule-associated protein 2	GCCAGCCTCGGAACAAACA	GCTCAGCGAATGAGGAAGGA
Syn1	NM_013680.4	Synapsin I	AGCTCAACAAATCCCAGTCTCT	CGGATGGTCTCAGCTTTCAC
Cspg4	NM_139001.2	Chondroitin sulfate proteoglycan 4 a.k.a NG2	GAAGAAGCAAGTCCTGTTTG	CGTGAAGATAGGGTTCTGAG
Pdgfra	NM_001083316.2	Platelet derived growth factor receptor, alpha polypeptide	GGAAGGACTGGAAGCTTGGGGC	GAGATGAGGCCCGGCCCTGTGA
Cnpase	NM_001146318.1	2',3'-cyclic nucleotide 3' phosphodiesterase	GTTCTGAGACCTCCGAAAA	CCTTGGGTTTCATCTCCAGAA
Mbp	NM_001025251.2	Myelin basic protein	CCCGTGGAGCCGTGATC	TCTCAAACGAAAAGGGA
Plp1	NM_011123.3	Proteolipid protein (myelin) 1	GCCCCTACCAGACATCTAGC	AGTCAGCCGCAAAACAGACT
Myrf	NM_001033481.1	Myelin regulatory factor	GCATGGGCACCGCCCCTAAG	GGGGCGAGTCTGGCAGTGTG
Sox10	NM_011437.1	SRY (sex determining region Y)-box 10	TGGACCGCACACCTTGGGACA	ACGCCACCTCTCCGACCT
Atm	NM_007499.2	Ataxia telangiectasia mutated	AAACTTTGGTTTACTTGAGGCCA	AAGGACTAGAAGGTTTACAGGCT
Atr	NM_019864.1	Ataxia telangiectasia and Rad3 related	GAATGGGTGAACAATACTGCTGG	TTTGGTAGCATACTGGCGA
Rad50	NM_009012.2	RAD50 double strand break repair protein	TGATAAGTTGTCTTGGGGTTTCC	CTGTGTCTGACGCACCTGT
Nbn	NM_013752.3	Nibrin	GATCAGTCAATCAGTCGAAACCA	CCAAGGGCTCGTATTCTACTCTG
Mre	NM_018736.3	MRE11A homolog A	TGGGTGAACTACCAGGATGG	CCCCGTGGGATCATCATGG
Ercc1	NM_001127324.1	Excision repair cross-complementing rodent repair deficiency, complementation group 1	TTCGGTGAGGTGATTCCCGAT	GATGGAGGTTGTGGTAGCGG
Ercc2	NM_007949.4	Excision repair cross-complementing rodent repair deficiency, complementation group 2	TACTCAGCTTCTACGAGCAGC	GCTCAGAGCCAGTCTAAGAAC
Ercc3	NM_133658.1	Excision repair cross-complementing rodent repair deficiency, complementation group 3	GCACCAAAGTGGATGAGTATGG	AGAAGGCTTCCAAGAAAATGTGG
Ercc4	NM_015769.2	Excision repair cross-complementing rodent repair deficiency, complementation group 4	CCATTCGACAAGACAATCCGC	ACACCTTCTCTGTTGCTCTCA

Ercc5	NM_011729.2	Excision repair cross-complementing rodent repair deficiency, complementation group 5	TGCTGGCCGTGGATATTAGC	GCCGGTGAATAATGTGAGAAGA
Ercc6	NM_001081221.1	Excision repair cross-complementing rodent repair deficiency, complementation group 6	GAGACCACAGAGAAACGTCCA	CTCCTGCTCACTGGTTTGCT
Ercc8	NM_028042.3	Excision repair cross-complementing rodent repair deficiency, complementation group 8	GAGCCCGTTGAAGGAAGATAC	GGCGTTCTCAAGGTCATAGAGTA
Gapdh	NM_008084.3	Glyceraldehyde-3-phosphate dehydrogenase	AGGTCATCCCAGAGCTGAACG	TCAGATGCCTGCTTCACCAC
18s	NR_003278.3	18S ribosomal RNA	CGGCTACCACATCCAAGGAA	GCTGGAATTACCGCGGCT
XRCC4	NM_022406	X-ray repair cross-complementing protein 4	ATGTTGGTGAAGTGAAGAAAGCA	GCAATGGTGTCCAAGCAATAAC
XRCC5	NM_021141	X-ray repair cross-complementing protein 5	GCACTGACAATCCCCTTTCTG	TCAATGTCTCCAGCAAATCAAA
XRCC6	NM_001469	X-ray repair cross-complementing protein 6	GCTAGAAGACCTGTTGCGGAA	TGTTGAGCTTCAGCTTTAACCTG

Supplementary Table 4: List of primers for qPCR