

**Appendix.** Gene nomenclature and Affymetrix probe sets for Figures 4–8.<sup>a</sup>

Gene symbol	Affymetrix Probe Set	Gene description
<b>Figure 4B—Signaling components</b>		
IL17R	99992_at	interleukin 17 receptor
RAP1	160822_at	Rap1, GTPase-activating protein 1
DEXRAS1	99032_at	RAS, dexamethasone-induced 1
MKP1	104598_at	dual specificity phosphatase 1
WNT4	103238_at	wingless-related MMTV integration site 4
IGFBP10	92777_at	cysteine rich protein 61
PIP92	99109_at	immediate early response 2
PIM3	96841_at	similar to serine/threonine-protein kinase pim-3
ARHU	96747_at	ras homolog gene family, member U
CISH3	162206_f_at	cytokine inducible SH2-containing protein 3
NAB2	100962_at	Ngf1-A binding protein 2
SOCS3	92232_at	cytokine inducible SH2-containing protein 3
EPLG2	98407_at	ligand for receptor tyrosine kinase ELK
IL17R	99991_at	interleukin 17 receptor
CDKN1A	98067_at	cyclin-dependent kinase inhibitor 1A (P21)
CDKN1A	94881_at	cyclin-dependent kinase inhibitor 1A (P21)
WSB1	98946_at	WD-40-repeat-containing protein with a SOCS box
VEGF	103520_at	vascular endothelial growth factor A
GADD45	102292_at	growth arrest and DNA-damage-inducible 45
SYT	99610_at	synovial sarcoma translocation, chromosome 18
SOCS1	92832_at	cytokine inducible SH2-containing protein 1
GADD45g	101979_at	growth arrest and DNA-damage-inducible 45 gamma
GLY96	94384_at	immediate early response 3
MAPKAP2	160353_i_at	MAP kinase-activated protein kinase 2
KLK22	101289_f_at	epidermal growth factor binding protein type 1
TROB	99532_at	tob family
RGS3	160747_at	regulator of G-protein signaling 3
GNA13	100514_at	guanine nucleotide binding protein, alpha 13
RAB11A	96238_at	RAB11a, member RAS oncogene family
PLGF	92909_at	placental growth factor
BDKRB1	101748_at	bradykinin B1 subtype receptor
CF3	97689_at	coagulation factor III
PDK4	102049_at	pyruvate dehydrogenase kinase, isoenzyme 4
HERPUD1	95057_at	homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1
MYD116	160463_at	myeloid differentiation primary response gene 116
NORE1	102028_at	Ras association (RalGDS/AF-6) domain family 5
NET1A	94223_at	neuroepithelial cell transforming gene 1
GEM	92534_at	GTP binding protein (gene overexpressed in skeletal muscle)

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**Appendix. Continued**

Gene symbol	Affymetrix Probe Set	Gene description
SNRK	97429_at	SNF related kinase
ALASH	93500_at	aminolevulinic acid synthase 1
NTTP1	161171_at	dual specificity phosphatase 8
MAPKAP2	95721_at	MAP kinase-activated protein kinase 2
MEK1	92585_at	mitogen activated protein kinase kinase 1
RGSr	94378_at	regulator of G-protein signaling 16
RASSF1	102379_at	Ras association (RalGDS/AF-6) domain family 1
NGEF	93178_at	neuronal guanine nucleotide exchange factor
C-KIT	99956_at	kit oncogene
NOTCH1	97497_at	Notch gene homolog 1
BTG3	96146_at	B-cell translocation gene 3
PC4	160092_at	interferon-related developmental regulator 1
SGK	97890_at	serum/glucocorticoid regulated kinase
ADM	102798_at	adrenomedullin
ANGPT2	92210_at	angiopoietin 2
UBQLN1	95601_at	ubiquilin 1
THBS1	160469_at	thrombospondin
ROCK2	98504_at	rho-associated coiled-coil forming kinase 2
SNK	92310_at	serum-inducible kinase
MAP2K3	93315_at	mitogen activated protein kinase kinase 3
ENG	100134_at	endoglin
PTDSR	95486_at	phosphatidylserine receptor
SWIP2	160296_at	WD-40-repeat-containing protein with a SOCS box
AKT	100970_at	thymoma viral proto-oncogene 1
RHOC	96056_at	ras homolog gene family, member C
TGFB2	93300_at	transforming growth factor, beta 2
EPCR	98018_at	protein C receptor, endothelial
KLK6	100061_f_at	kallikrein 6
GALN	100407_at	galanin
NEDD4B	103907_at	neural precursor cell expressed, developmentally down-regulated gene 4-like
KLK22	95775_f_at	kallikrein 22
KLK9	94716_f_at	kallikrein 9
MCP1	102736_at	platelet-derived growth factor-inducible protein JE
TIE1	99936_at	tyrosine kinase receptor 1
RAMP1	104680_at	receptor (calcitonin) activity modifying protein 1
PGF	97789_at	prostaglandin F receptor
PDGF $\alpha$ RA	95079_at	platelet derived growth factor receptor, alpha polypeptide
OB-RGRP	93600_at	leptin receptor
ERK1	101834_at	mitogen activated protein kinase 3
GRB7	103095_at	growth factor receptor bound protein 7
ADCY6	102321_at	adenylate cyclase 6
TIE1	161184_f_at	tyrosine kinase receptor 1
GNAI1	104412_at	guanine nucleotide binding protein, alpha inhibiting 1
ADCY7	103392_at	adenylate cyclase 7
TIE2	102720_at	endothelial-specific receptor tyrosine kinase
GPCR26	100435_at	endothelial differentiation, lysophosphatidic acid G-protein-coupled receptor, 2
GIF	99603_g_at	TGFB inducible early growth response
GIF	99602_at	TGFB inducible early growth response
ETS2	94246_at	E26 avian leukemia oncogene 2, 3' domain
ID1	100050_at	inhibitor of DNA binding 1
SMAD7	92216_at	MAD homolog 7
C-JUN	100130_at	Jun oncogene
BRF2	160273_at	zinc finger protein 36, C3H type-like 2
IRF8	98002_at	interferon consensus sequence binding protein
AGP/EBP	92925_at	CCAAT/enhancer binding protein (C/EBP), beta
C-FOS	160901_at	c-fos oncogene
KROX24	98579_at	zinc finger protein Krox-24
FOSB	103990_at	FBJ osteosarcoma oncogene B
NR4A1	102371_at	N10 nuclear hormonal binding receptor
SOX18	161025_f_at	SRY-box containing gene 18
SOX18	104408_s_at	SRY-box containing gene 18
KROX20	102661_at	Early growth response 2
ESG	104623_at	transducin-like enhancer of split 3, homolog of Drosophila E(spl)
FOG	97974_at	zinc finger protein, multifunctional 1
NCOR2	95129_at	nuclear receptor co-repressor 2

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**Appendix. Continued**

Gene symbol	Affymetrix Probe Set	Gene description
SOX11	101631_at	SRY-box containing gene 11
C/EBP	94466_f_at	CCAAT/enhancer binding protein alpha (C/EBP), related sequence 1
PRX2	103327_at	paired related homeobox 2
ATF4	100599_at	activating transcription factor 4
STAT5B	100422_i_at	signal transducer and activation of transcription 5A
HEY1	95671_at	hairy/enhancer-of-split related with YRPW motif 1
ATF5	103006_at	activating transcription factor 5
C/EBP	98447_at	CCAAT/enhancer binding protein
RIP140	103288_at	nuclear receptor interacting protein 1
CRTR1	103761_at	Tcfcp2-related transcriptional repressor 1
MEF2A	93852_at	myocyte enhancer factor 2A
TIS11	92830_s_at	zinc finger protein 36
STAT5B	100423_f_at	signal transducer and activation of transcription 5A
ATF3	104155_f_at	activating transcription factor 3
CART1	100005_at	TNF receptor associated factor 4
JUNB	102362_i_at	transcription factor junB
<b>Figure 5A—RNA synthesis</b>		
SFPQ	99621_s_at	splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated)
U2AF1	97486_at	U2 small nuclear ribonucleoprotein auxiliary factor (U2AF), 35 kDa
RBMXP1	160192_at	RNA binding motif protein, X chromosome retrogene
DDX21	94361_at	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 21 (RNA helicase II/Gu)
DDX3	101542_f_at	DEAD (aspartate-glutamate-alanine-aspartate) box polypeptide 3
NSAP1	94985_at	NS1-associated protein 1
MKI67 bp	93342_at	Mki67 (FHA domain) interacting nucleolar phosphoprotein
ELAVL1	94001_at	ELAV (embryonic lethal, abnormal vision, Drosophila)-like 1 (Hu antigen R)
PSP1	103393_at	paraspeckle protein 1
SRP20	101003_at	splicing factor, arginine-serine-rich 3 (SRp20)
JKTBP	96084_at	heterogeneous nuclear ribonucleoprotein D-like
RPA2	92225_f_at	RNA polymerase I–2 (128 kDa subunit)
RALY	98511_at	hnRNP-associated with lethal yellow
SFRS10	95791_s_at	splicing factor, arginine-serine-rich 10
FBL	160503_at	fibrillarin
SNRPA1	101506_at	small nuclear ribonucleoprotein polypeptide A'
TASR	98048_at	neural-salient serine/arginine-rich
RPB10	93551_at	RNA polymerase II subunit 10
AUF1	94303_at	heterogeneous nuclear ribonucleoprotein D
HRMT1L2	96696_at	heterogeneous nuclear ribonucleoproteins methyltransferase-like 2
CGI-110	95714_at	pre-mRNA branch site protein p14
SMN	103620_s_at	survival motor neuron
RPB8	97254_at	RNA binding motif protein
RNPS1	93518_at	ribonucleic acid binding protein S1
NCL	160521_at	nucleolin
RPA1	93620_at	RNA polymerase I–4 (194 kDa subunit)
HNRPA2B1	93118_at	heterogeneous nuclear ribonucleoprotein A2/B1
SNRPD1	100577_at	small nuclear ribonucleoprotein D1
H/ALAsnRNP	97824_at	nucleolar protein family A, member 2
TAF10	103910_at	TAFII30
DDX24	99096_at	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 13 (RNA helicase A)
<b>Figure 5B</b>		
MAD4	99024_at	Max dimerization protein 4
EZH1	100486_at	enhancer of zeste homolog 1 (Drosophila)
HDA1	104376_at	histone deacetylase 5
AUH	96650_at	AU RNA binding protein/enoyl-coenzyme A hydratase
TGIF	101502_at	TG interacting factor
<b>Figure 5C—Nuclear import/export</b>		
POM121	96174_at	nuclear pore membrane protein 121
NXF1	101079_at	nuclear RNA export factor 1 homolog ( <i>S. cerevisiae</i> )
IMPORTIN $\alpha$ 3	96010_at	karyopherin (importin) $\alpha$ 3
RAE1	160466_at	RNA export 1 homolog ( <i>S. pombe</i> )
IMPORTIN $\alpha$ 2	92790_at	karyopherin (importin) $\alpha$ 2
G3BP2	94913_at	Ras-GTPase-activating protein (GAP120) SH3-domain binding protein 2

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Gene symbol	Affymetrix Probe Set	Gene description
<b>Figure 5D—Protein translation</b>		
elf3S7	99101_at	eukaryotic translation initiation factor 3, subunit 7 (zeta, 66/67kDa)
elf2B	160365_at	eukaryotic translation initiation factor 2, subunit 2 (beta, 38kDa)
elf3S4	96883_at	eukaryotic translation initiation factor 3, subunit 4 (delta, 44kDa)
EBNA1-bp2	96297_at	EBNA1 binding protein 2
GLNRS	96628_at	glutamyl-prolyl-tRNA synthetase
NAT1	100535_at	eukaryotic translation initiation factor 4, gamma 2
elf3S9	93973_at	eukaryotic translation initiation factor 3, subunit 9
RPS18b	95159_at	ribosomal protein S18b
VALRS	97894_at	valyl-tRNA synthetase 2
RPL12	160431_at	mitochondrial ribosomal protein L12
elf1A	93058_at	eukaryotic translation initiation factor 1A
eRF1	160451_at	translation releasing factor eRF1
elf1A	103708_at	eukaryotic translation initiation factor 1A
elf6	94826_at	integrin beta 4 binding protein
eRF1	98608_at	translation releasing factor eRF1
RPL20	94875_at	mitochondrial ribosomal protein L20
PHERS	94494_at	phenylalanine-tRNA synthetase-like
ASNS	95133_at	asparagine synthetase
elf3S10	94250_at	eukaryotic translation initiation factor 3
NOP56	95109_at	nucleolar protein 5A
elf2AS1	94253_at	eukaryotic translation initiation factor 2A
RRS1	96778_at	regulator for ribosome resistance homolog (S. cerevisiae)
eRF1	96755_at	translation releasing factor eRF1
eRF1	96754_s_at	translation releasing factor eRF1
SUI1	92855_at	suppressor of initiator codon mutations, related sequence 1 (S. cerevisiae)
RPL11	98876_at	mitochondrial ribosomal protein L11
RPL52	97443_at	mitochondrial ribosomal protein L52
<b>Figure 5E—Protein folding</b>		
CCT3	98153_at	chaperonin subunit 3 (gamma)
FKBP4	92808_f_at	FK506 binding protein 4 (59 kDa)
CCT7	160562_at	chaperonin subunit 7 (eta)
PPID	97445_at	peptidyl prolyl isomerase D (cyclophilin D)
CCT10	92829_at	heat shock 10 kDa protein 1 (chaperonin 10)
CCT8	160102_at	chaperonin subunit 8 (theta)
CCT6A	162279_f_at	chaperonin subunit 6a (zeta)
CCT3	161238_f_at	chaperonin subunit 3 (gamma)
<b>Figure 5F—Protein degradation</b>		
PAD1	97274_at	26S proteasome-associated pad1 homolog
PSMB5	101558_s_at	proteasome (prosome, macropain) subunit, beta type 5
PSMD4	94302_at	proteasome (prosome, macropain) 26S subunit, non-ATPase, 4
PSMB3	94025_at	proteasome (prosome, macropain) subunit, beta type 3
SUG1	160534_at	protease (prosome, macropain) 26S subunit, ATPase 5
PSMB6	101992_at	proteasome (prosome, macropain) subunit, beta type 6
PSMB2	94219_at	proteasome (prosome, macropain) subunit, beta type 2
<b>Figure 6B—DNA replication and cell division</b>		
SAKB	98996_at	serine/threonine kinase 18
RRM2	102001_at	ribonucleotide reductase M2
CAF1 p60	100890_at	chromatin assembly factor, p60 subunit
ORC6	95712_at	origin recognition complex, subunit 6-like (S. cerevisiae)
PCNA	101065_at	proliferating cell nuclear antigen
MCM2	93112_at	mini chromosome maintenance deficient 2
CDC6	103821_at	cell division cycle 6 homolog (S. cerevisiae)
MCM4	93041_at	mini chromosome maintenance deficient 4 homolog
MCM3	160496_s_at	mini chromosome maintenance deficient (S. cerevisiae)
MCM3	100062_at	mini chromosome maintenance deficient (S. cerevisiae)
TOPB1	103071_at	topoisomerase (DNA) II binding protein
CHK1	103064_at	checkpoint kinase 1 homolog (S. pombe)
MCM5	100156_at	mini chromosome maintenance deficient 5
CKS1	97468_at	CDC28 protein kinase 1
ORC1	92458_at	origin recognition complex, subunit 1-like (S. cerevisiae)
RRM1	100612_at	ribonucleotide reductase M1
FEN1	97327_at	flap structure specific endonuclease 1

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Gene symbol	Affymetrix Probe Set	Gene description
GEMININ	160069_at	geminin
E2F1	102963_at	E2F transcription factor 1
PLK1	93099_f_at	polo-like kinase homolog (Drosophila)
CCNB1	160159_at	cyclin B1, related sequence 1
<b>Figure 6C—Cell-cycle regulators</b>		
CCND1	94232_at	cyclin D1
CDC34	94048_at	cell division cycle 34 homolog
KIP2	95471_at	cyclin-dependent kinase inhibitor 1C (P57)
CCNG2	98478_at	cyclin G2
KIP1	161010_r_at	cyclin-dependent kinase inhibitor (p27)
CCNI	94819_f_at	cyclin I
<b>Figure 6D—Apoptosis</b>		
CASP2	99049_at	caspase 2
NIX	96255_at	BCL2/adenovirus E1B 19 kDa-interacting protein 3-like
APR3	160271_at	apoptosis related protein APR3
TNFSF12	93917_at	tumor necrosis factor (ligand) superfamily, member 12
PDCD4	103029_at	programmed cell death 4
MIAP2	102734_at	baculoviral IAP repeat-containing 3
MTD	98031_at	Bcl-2-related ovarian killer protein
SDNSF	97451_at	neural stem cell derived neuronal survival protein
DAD1	96008_at	defender against Apoptotic Death 1
AAC11	101035_at	apoptosis inhibitor 5
BAG1	96167_at	Bcl2-associated athanogene 3
BAG2	161129_r_at	similar to BAG-family molecular chaperone regulator-2
<b>Figure 7A—Cytoarchitecture</b>		
MDEG2	99910_at	amiloride-sensitive cation channel 1, neuronal (degenerin)
MAT8	103059_at	FXYD domain-containing ion transport regulator 3
CLCA3	162287_r_at	chloride channel calcium activated 3
CD133	93389_at	prominin
CD133	93390_g_at	prominin
PIGF	104725_at	ras-like protein
DSG2	104480_at	desmoglein 2
MAN2B1	99562_at	mannosidase 2, alpha B1
CLDN4	101410_at	claudin 4
CLDN7	99561_f_at	claudin 7
SPRR2E	100723_f_at	small proline-rich protein 2E
SPRR2J	101755_f_at	small proline-rich protein 2J
SPRR2A	101025_f_at	small proline-rich protein 2A
TROP2	103648_at	tumor-associated calcium signal transducer 2
SPRR2I	95794_f_at	small proline-rich protein 2I
SPRR2C	101761_f_at	small proline-rich protein 2C
SPRR2A	101024_i_at	small proline-rich protein 2A
LRG	97420_at	leucine-rich alpha-2-glycoprotein
TROP2	160651_at	tumor-associated calcium signal transducer 2
SPRR2G	101754_f_at	small proline-rich protein 2G
SPRR2F	94120_s_at	small proline-rich protein 2F
BGP1	102805_at	CEA-related cell adhesion molecule 1
BGP1	102804_at	CEA-related cell adhesion molecule 1
BGP1	102806_g_at	CEA-related cell adhesion molecule 1
BGP2	101908_s_at	CEA-related cell adhesion molecule 2
CX26	98423_at	connexin 26
MUC1	102918_at	mucin 1, transmembrane
SPP1	97519_at	secreted phosphoprotein 1
CLU	161294_f_at	clusterin
CLU	95286_at	clusterin
CFTR	94757_at	cystic fibrosis transmembrane conductance regulator homolog
KRT19	92550_at	keratin complex 1, acidic, gene 19
KRT19	102121_f_at	keratin complex 1, acidic, gene 19
SPRR1A	160909_at	small proline-rich protein 1A
GALNT3	162313_f_at	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 3
<b>Figure 7B—Defense responses</b>		
PLGR	99926_at	polyimmunoglobulin receptor
CTSL	101963_at	cathepsin L
LAMP1	100136_at	lysosomal membrane glycoprotein 2
CTSS	98543_at	cathepsin S
GSTO1	97819_at	glutathione S-transferase omega 1
GSTT2	104603_at	glutathione S-transferase, theta 2
CTSH	94834_at	cathepsin H

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Gene symbol	Affymetrix Probe Set	Gene description
UGT1A1	99580_s_at	UDP glycosyltransferase 1 family, polypeptide A6
CD14	98088_at	CD14 antigen
LGALS3	95706_at	lectin, galactose binding, soluble 3
PGLYRP	104099_at	peptidoglycan recognition protein
LGMN	93261_at	legumain
GARG16	100981_at	interferon-induced protein with tetratricopeptide repeats
H2Q1	99378_f_at	MHC beta-2-microglobulin
ISGFG3	103634_at	interferon dependent positive acting transcription factor 3 gamma
H2D1	101886_f_at	histocompatibility 2, D region locus 1
LYZP	101753_s_at	P lysozyme structural
LYZM	100611_at	lysozyme M
MLGP85	101389_at	scavenger receptor class B, member 2
H2D1	97540_f_at	histocompatibility 2, D region locus 1
CD68	103016_s_at	CD68 antigen
LY6A	93078_at	lymphocyte antigen 6 complex, locus A
MX1	98417_at	myxovirus (influenza virus) resistance 1
<b>Figure 7C—Chemoattractant cytokines</b>		
MCP3	94761_at	monocyte chemoattractant protein 3
MCP1	102736_at	platelet-derived growth factor-inducible protein JE
EOTAXIN	92742_at	small inducible cytokine a11
<b>Figure 7D—Complement</b>		
CFI	99927_at	complement component factor i
C3	93497_at	complement component 3
CFH-related	92291_f_at	complement component factor-related
C2	103673_at	complement component 2 (within H-2S)
CFH-related	101853_f_at	complement component factor h
C1QA	98562_at	complement component 1, q subcomponent, alpha polypeptide
C1QB	96020_at	complement component 1, q subcomponent, beta polypeptide
C4	103033_at	complement component 4 (within H-2S)
C1QC	92223_at	complement component 1, q subcomponent, c polypeptide
CFH-related	94743_f_at	complement component factor-related
<b>Figure 7E—Iron homeostasis</b>		
CP	92851_at	ceruloplasmin
LTF	101115_at	lactotransferrin
LCN2	160564_at	lipocalin 2/24p3 gene.
<b>Figure 8B</b>		
ETS2	94246_at	E26 avian leukemia oncogene 2, 3' domain
ATF3	104155_f_at	activating transcription factor 3
JUN	100130_at	Jun oncogene
JUNB	102362_i_at	transcription factor junB
FOS	160901_at	c-fos oncogene
FOSB	103990_at	FBJ osteosarcoma oncogene B
ATF5	103006_at	activating transcription factor 5
ATF4	100599_at	activating transcription factor 4
SPRR2I	95794_f_at	small proline-rich protein 2I
SPRR2C	101761_f_at	small proline-rich protein 2C
SPRR2G	101754_f_at	small proline-rich protein 2G
SPRR2J	101755_f_at	small proline-rich protein 2J
SPRR2A	101025_f_at	small proline-rich protein 2A
SPRR2F	94120_s_at	small proline-rich protein 2F
SPRR2E	100723_f_at	small proline-rich protein 2E
SPRR1A	160909_at	small proline-rich protein 1A

<sup>a</sup>Gene annotations were derived by interrogation of the NetAffx (Liu et al. 2003) database; <http://www.affymetrix.com/analysis/index.affx> and by homology searching of nucleotide sequence databases (BLASTn; <http://www.ncbi.nih.gov/BLAST/>) using Affymetrix probe target sequences.