

Gene Symbol	Assay ID	Gene Name
ACTB ^l	Hs99999903_m1	actin, beta
AKT1 ^b	Hs00178289_m1	v-akt murine thymoma viral oncogene homolog 1
APC ^b	Hs01568269_m1	Adenomatous Polyposis Coli
APEX ^d	Hs00172396_m1	APEX nuclease (multifunctional DNA repair enzyme) 1
ATF3 ^{a, b}	Hs00231069_m1	activating transcription factor 3
ATM ^b	Hs01112307_m1	ataxia telangiectasia mutated
ATR ^b	Hs00354807_m1	ataxia telangiectasia and Rad3 related
BAD ^b	Hs00188930_m1	BCL2-associated agonist of cell death
BCL2 ^b	Hs00608023_m1	B-cell CLL/lymphoma 2
BCL2L1 ^b	Hs00236329_m1	BCL2-like 1
C11orf31 ^{h, i}	Hs00415057_m1	chromosome 11 open reading frame 31
CCNE1 ^b	Hs01026536_m1	cyclin E1
CCNF ^b	Hs00171049_m1	cyclin F
CDKN1A ^b	Hs00355782_m1	cyclin-dependent kinase inhibitor 1A (p21, Cip1)
CEBPA ^{b, h}	Hs00269972_s1	CCAAT/enhancer binding protein (C/EBP), alpha
CEBPB ^b	Hs00270923_s1	CCAAT/enhancer binding protein (C/EBP), beta
CHEK1 ^b	Hs00967506_m1	CHK1 checkpoint homolog (S. pombe)
CHEK2 ^b	Hs00200485_m1	CHK2 checkpoint homolog (S. pombe)
CYP1A1 ^k	Hs00153120_m1	cytochrome P450, family 1, subfamily A, polypeptide 1
CYP1B1 ^k	Hs00164383_m1	cytochrome P450, family 1, subfamily B, polypeptide 1
DDB1 ^c	Hs00172410_m1	damage-specific DNA binding protein 1, 127kDa

DDB2 ^c	Hs03044953_m1	damage-specific DNA binding protein 2, 48kDa
DDIT3 ^b	Hs01090850_m1	DNA-damage-inducible transcript 3
ERCC1 ^c	Hs01012158_m1	excision repair cross-complementing rodent repair deficiency, complementation group 1 (includes overlapping antisense sequence)
ERCC2 ^c	Hs00361161_m1	excision repair cross-complementing rodent repair deficiency, complementation group 2
ERCC3 ^c	Hs01554450_m1	excision repair cross-complementing rodent repair deficiency, complementation group 3 (xeroderma pigmentosum group B complementing)
ERCC4 ^c	Hs00193342_m1	excision repair cross-complementing rodent repair deficiency, complementation group 4
ERCC5 ^c	Hs00164482_m1	excision repair cross-complementing rodent repair deficiency, complementation group 5
FOS ^b	Hs00170630_m1	FBJ murine osteosarcoma viral oncogene homolog
GADD45B ^b	Hs00169587_m1	growth arrest and DNA-damage-inducible, beta
GAPDH ^l	Hs99999905_m1	glyceraldehyde-3-phosphate dehydrogenase
GLI1^j	Hs01110766_m1	GLI family Zinc (II) finger 1
HBEGF ^{a, b}	Hs00181813_m1	heparin-binding EGF-like growth factor
HIPK2 ^b	Hs00179759_m1	homeodomain interacting protein kinase 2
HMOX1 ⁱ	Hs01110250_m1	heme oxygenase (decycling) 1
HSPA6^k	Hs00275682_s1	heat shock 70kDa protein 6 (HSP70B')
HSPD1 ^k	Hs01941522_u1	heat shock 60kDa protein 1 (chaperonin)
IGF1R ^b	Hs00609566_m1	insulin-like growth factor 1 receptor
IL10^a	Hs00961622_m1	interleukin 10
IL1B ^a	Hs01555410_m1	interleukin 1, beta
IL1RN ^a	Hs00893626_m1	interleukin 1 receptor antagonist
IL8 ^a	Hs00174103_m1	interleukin 8
ITCH ^b	Hs00395201_m1	itchy E3 ubiquitin protein ligase homolog (mouse)
JUN ^b	Hs00277190_s1	jun proto-oncogene
KRT10^j	Hs00166289_m1	keratin 10

LCN2 ^{h,i}	Hs01008571_m1	lipocalin 2
MDM2 ^b	Hs00234753_m1	Mdm2 p53 binding protein homolog (mouse)
MGMT ^k	Hs01037698_m1	O-6-methylguanine-DNA methyltransferase
MMP9^a	Hs00234579_m1	matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
MSH2 ^c	Hs00953523_m1	mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli)
MSH6 ^c	Hs00264721_m1	mutS homolog 6 (E. coli)
MT1A^{g,h}	Hs00831826_s1	metallothionein 1A
MT1B^{g,h}	Hs00538861_m1	metallothionein 1B
MT1E ^{g,h}	Hs01938284_g1	metallothionein 1E
MT1F ^{g,h}	Hs00744661_sH	metallothionein 1F
MT1G^{g,h}	Hs02578922_Gh	metallothionein 1G
MT1H^{g,h}	Hs00823168_g1	metallothionein 1H
MT1M^{g,h}	Hs00828387_g1	metallothionein 1M
MT1X ^{g,h}	Hs00745167_sH	metallothionein 1X
MT2A ^{g,h}	Hs01591333_g1	metallothionein 2A
MTF1 ^g	Hs00232306_m1	metal-regulatory transcription factor 1
NOTCH1 ^{h,j}	Hs01062014_m1	notch 1
NTHL1 ^d	Hs00959764_m1	nth endonuclease III-like 1 (E. coli)
OGG1 ^d	Hs00213454_m1	8-oxoguanine DNA glycosylase
PARP1 ^d	Hs00242302_m1	poly (ADP-ribose) polymerase 1
PCNA ^{c, d, e}	Hs00427214_g1	proliferating cell nuclear antigen
PGK1 ^l	Hs00943178_g1	phosphoglycerate kinase 1
POLB ^d	Hs01099715_m1	polymerase (DNA directed), beta
PTGS2 ^a	Hs00153133_m1	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
RAD23B ^c	Hs00234102_m1	RAD23 homolog B (S. cerevisiae)
RAD51 ^f	Hs00153418_m1	RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae)
RAD52 ^f	Hs00172536_m1	RAD52 homolog (S. cerevisiae)
RPA1 ^{c, f}	Hs00161419_m1	replication protein A1, 70kDa
S100A7^{a,j}	Hs00161488_m1	S100 calcium binding protein A7
SDHA ^l	Hs00188166_m1	succinate dehydrogenase complex, subunit A, flavoprotein (Fp)
SKIL ^b	Hs01045418_m1	SKI-like oncogene
SLC30A1 ^{g,h}	Hs00253602_m1	solute carrier family 30 (Zinc (II) transporter), member 1

SMUG1 ^d	Hs00204820_m1	single-strand-selective monofunctional uracil-DNA glycosylase 1
SNAI2 ^a	Hs00950344_m1	snail homolog 2 (Drosophila)
TNF^a	Hs00174128_m1	tumor necrosis factor
TNFAIP3 ^a	Hs00234713_m1	tumor necrosis factor, alpha-induced protein 3
TP53 ^b	Hs01034249_m1	tumor protein p53
TP73 ^b	Hs01056230_m1	tumor protein p73
TREX1 ^c	Hs03055245_s1	three prime repair exonuclease 1
TRIM26 ^a	Hs00758189_m1	tripartite motif-containing 26
TXN ⁱ	Hs01555212_g1	thioredoxin
UNG ^d	Hs00422172_m1	uracil-DNA glycosylase
VEGFC ^a	Hs00153458_m1	vascular endothelial growth factor C
XPA ^c	Hs00166045_m1	xeroderma pigmentosum, complementation group A
XPC ^c	Hs01104206_m1	xeroderma pigmentosum, complementation group C
XRCC1 ^d	Hs00959834_m1	X-ray repair complementing defective repair in Chinese hamster cells 1
XRCC2 ^f	Hs03044154_m1	X-ray repair complementing defective repair in Chinese hamster cells 2
XRCC3 ^f	Hs00193725_m1	X-ray repair complementing defective repair in Chinese hamster cells 3
XRCC6 ^f	Hs00995282_g1	X-ray repair complementing defective repair in Chinese hamster cells 6
ZNRD1 ^k	Hs00205908_m1	Zinc ribbon domain containing 1

Supplementary 1. List of selected genes for TaqMan Low-Density Array analysis

Undetermined genes are highlighted in bold.

^a Inflammation

^b DNA-damage response

^c Nucleotide excision repair

^d Base excision repair

^e Mismatch repair

^f Double strand break repair

^g Zinc homeostasis

^h Genes containing MRE sites

ⁱ Oxidative stress

^j Keratinocyte proliferation/differentiation, cell survival

^k Others: ZNRD1, MGMT, HSPA6 (HSP70B), HSPD1 (HSP60), CYP1A1, CYP1B1

¹ Housekeeping genes for normalisation