Table S1: List of TaqMan Gene Expression Assays that were used to determine gene expression levels

Gene symbol	Assay ID	Gene Bank Accession No.	Gene name	Amplicon length [bp]
PPIA	Hs99999904_m1	NM_021130.3	Peptidylprolyl isomerase A	98
UBC	Hs00824723_m1	NM_021009.5	Ubiquitin C	71
YWHAZ	Hs03044281_g1	NM_001135700.1	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide	106
ABCA1	Hs00194045_m1	NM_005502.3	ATP-binding cassette, sub-family A (ABC1), member 1	125
ABCA2	Hs00242232_m1	NM_212533.2	ATP-binding cassette, sub-family A (ABC1), member 2	58
ABCA3	Hs00184543_m1	NM_001089.2	ATP-binding cassette, sub-family A (ABC1), member 3	77
ABCA7	Hs00185303_m1	NM_019112.3	ATP-binding cassette, sub-family A (ABC1), member 7	80
ABCA8	Hs00992371_m1	NM_007168.2	ATP-binding cassette, sub-family A (ABC1), member 8	85
ABCA9	Hs00329320_m1	NM_080283.3	ATP-binding cassette, sub-family A (ABC1), member 9	145
ABCA10[a]	Hs00365268_m1	NM_080282.3	ATP-binding cassette, sub-family A (ABC1), member 10	127
ABCA12	Hs00292421_m1	NR_103740.1	ATP-binding cassette, sub-family A (ABC1), member 1	77
ABCA13	Hs01110169_m1	NM_152701.3	ATP-binding cassette, sub-family A (ABC1), member 13	80
ABCB1	Hs00184491_m1	NM_000927.4	ATP-binding cassette, sub-family B (MDR/TAP), member 1	110
ABCB2	Hs00388677_m1	NM_000593.5	Transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)	60
ABCB3	Hs00241060_m1	NM_018833.2	Transporter 2, ATP-binding cassette, sub-family B (MDR/TAP)	66
ABCB4	Hs00240956_m1	NM_018850.2	ATP-binding cassette, sub-family B (MDR/TAP), member 4	73
ABCB11	Hs00184824_m1	NM_003742.2	ATP-binding cassette, sub-family B (MDR/TAP), member 11	63
ABCC1	Hs00219905_m1	NM_004996.3	ATP-binding cassette, sub-family C (CFTR/MRP), member 1	74
ABCC2	Hs00166123_m1	NM_000392.3	ATP-binding cassette, sub-family C (CFTR/MRP), member 2	75
ABCC3	Hs00358656_m1	NM_003786.3	ATP-binding cassette, sub-family C (CFTR/MRP), member 3	98

ABCC4	Hs00195260_m1	NM_005845.3	ATP-binding cassette, sub-family C (CFTR/MRP), member 4	86
ABCC5	Hs00981089_m1	NM_005688.2	ATP-binding cassette, sub-family C (CFTR/MRP), member 5	68
ABCC6	Hs00184566_m1	NM_001171.5	ATP-binding cassette, sub-family C (CFTR/MRP), member 6	56
ABCC9	Hs00245832_m1	NM_020297.2	ATP-binding cassette, sub-family C (CFTR/MRP), member 9	70
ABCC10	Hs00375716_m1	NM_033450.2	ATP-binding cassette, sub-family C (CFTR/MRP), member 10	142
ABCD1	Hs00163610_m1	NM_000033.3	ATP-binding cassette, sub-family D (ALD), member 1	101
ABCD2	Hs00193054_m1	NM_005164.3	ATP-binding cassette, sub-family D (ALD), member 2	109
ABCD3	Hs00161065_m1	NM_002858.3	ATP-binding cassette, sub-family D (ALD), member 3	91
ABCD4	Hs00245340_m1	NM_005050.3	ATP-binding cassette, sub-family D (ALD), member 4	117
ABCE1	Hs01009190_m1	NM_001040876.1	ATP-binding cassette, sub-family E (OABP), member 1	91
ABCF1	Hs00153703_m1	NM_001090.2	ATP-binding cassette, sub-family F (GCN20), member 1	69
ABCF2	Hs00606493_m1	NM_005692.4	ATP-binding cassette, sub-family F (GCN20), member2	113
ABCF3	Hs00217977_m1	NM_018358.2	ATP-binding cassette, sub-family F (GCN20), member3	61
ABCG1	Hs00245154_m1	NM_207629.1	ATP-binding cassette, sub-family G (WHITE), member 1	58
ABCG2	Hs00184979_m1	NM_004827.2	ATP-binding cassette, sub-family G (WHITE), member2	92
ABCG8	Hs00223690_m1	NM_022437.2	ATP-binding cassette, sub-family G (WHITE), member 8	63
ATOX1	Hs00187841_m1	NM_004045.3	Antioxidant 1 copper chaperone	74
ATP7A	Hs00163707_m1	NM_000052.6	ATPase, Cu++ transporting, alpha polypeptide	88
ATP7B	Hs00163739_m1	NM_000053.3	ATPase, Cu++ transporting, beta polypeptide	83
ATP11B	Hs00966779_m1	NM_014616.2	ATPase, class VI, type 11B	79
EGFR	Hs01076078_m1	NM_005228.3	Epidermal growth factor receptor	60
ESR2	Hs01100357_m1	NM_001437.2	Estrogen receptor 2	93
GLRX[a]	Hs00829752_g1	NM_002064.2	Glutaredoxin (thioltransferase)	133
ERBB2	Hs01001580_m1	NM_004448.2	V-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2	60

MKI67	Hs01032443_m1	NM_002417.4	Antigen identified by monoclonal antibody Ki-67	66
NR0B2	Hs00222677_m1	NM_021969.2	Nuclear receptor subfamily 0, group B, member 2	87
NR1H4	Hs00231968_m1	NM_005123.3	Nuclear receptor subfamily 1, group H, member 4	85
NR1I1	Hs01045840_m1	NM_000376.2	Vitamin D (1,25- dihydroxyvitamin D3) receptor	88
NR1I2	Hs01114267_m1	NM_003889.3	Nuclear receptor subfamily 1, group I, member 2	103
PLK1[a]	Hs00153444_m1	NM_005030.3	Polo-like kinase 1	91
PLK2	Hs01573405_g1	NM_006622.3	Polo-like kinase 2	97
PRC1	Hs00187740_m1	NM_003981.3	Protein regulator of cytokinesis 1	66
SLC16A14	Hs00541300_m1	NM_152527.4	Solute carrier family 16, member 14	106
SLC22A1	Hs00427552_m1	NM_003057.2	Solute carrier family 22 (organic cation transporter), member 1	79
SLC22A3	Hs01009568_m1	NM_021977.3	Solute carrier family 22 (organic cation transporter), member 3	73
SLC22A4[b]	Hs00268200_m1	NM_003059.2	Solute carrier family 22 (organic cation/zwitterion transporter), member 4	76
SLC22A5	Hs00929869_m1	NM_003060.3	Solute carrier family 22 (organic cation/carnitine transporter), member 5	65
SLC22A18	Hs00180039_m1	NM_002555.5	Solute carrier family 22, member 18	81
SLC31A1	Hs00977268_g1	NM_001859.3	Solute carrier family 31 (copper transporter), member 1	81
SLC31A2	Hs00156984_m1	NM_001860.2	Solute carrier family 31 (copper transporter), member 2	70
SLC47A1	Hs00217320_m1	NM_018242.2	Solute carrier family 47 (multidrug and toxin extrusion), member 1	74
SOD2	Hs00167309_m1	NM_000636.2	Superoxide dismutase 2, mitochondrial	67
SOD3	Hs00162090_m1	NM_003102.2	Superoxide dismutase 3, extracellular	99
TP53	Hs01034249_m1	NM_000546.5	Tumor protein p53	108
TRAP1	Hs00212474_m1	NM_016292.2	TNF receptor-associated protein 1	64

Footnotes:

[a]Annealing temperature during real-time PCR was set to 62 °C.

[b]Annealing temperature during real-time PCR was set to 58 °C.

Table S2: Differences in gene expression levels between (A) controls, primary EOC tumors and intraperitoneal metastases; (B) primary tumors and metastases (complete results)

	(A)		(B)	
Gene	**p-Value**	**Trend**	**p-Value**	**Trend**
ABCA1	NS		0.010	pT < M
ABCA2	NS		NS	
ABCA3	NS		NS	
ABCA7	<0.001	C < pT < M	0.001	pT < M
ABCA8	NS		NS	
ABCA9	NS		NS	
ABCA10	<0.001	C > pT > M	NS	
ABCA12	0.037	C < pT < M	NS	
ABCA13	<0.001	C < pT < M	NS	
ABCB1	NS		NS	
ABCB2	0.002	C < pT < M	0.021	pT < M
ABCB3	<0.001	C < pT < M	NS	
ABCB4	NS		NS	
ABCB11	0.027	C < pT < M	NS	
ABCC1	NS		NS	
ABCC2	NS		0.001	pT < M
ABCC3	<0.001	C < pT < M	0.045	pT < M
ABCC4	NS		NS	
ABCC5	NS		NS	
ABCC6	NS		NS	
ABCC9	NS		0.014	pT < M
ABCC10	NS		NS	
ABCD1	NS		0.022	pT < M
ABCD2	NS		0.011	pT < M
ABCD3	<0.001	C > pT > M	NS	
ABCD4	NS		NS	
ABCE1	<0.001	C > pT > M	NS	
ABCF1	NS		NS	
ABCF2	NS		NS	
ABCF3	<0.001	C > pT > M	NS	
ABCG1	NS		NS	
ABCG2	<0.001	C > pT > M	NS	
ABCG8	NS		NS	
ATOX1	NS		NS	
ATP7A	NS		NS	
ATP7B	NS		NS	
ATP11B	NS		NS	
EGFR	NS		NS	

ESR2	<0.001	C > pT > M	0.001	pT > M
GLRX	NS		0.001	pT < M
HER2	NS		NS	
MKI67	NS		NS	
NR0B2	NS		NS	
NR1H4	<0.001	C > pT > M	0.005	pT > M
NR1I1	<0.001	C < pT < M	0.007	pT < M
NR1I2	NS		NS	
PLK1	NS		NS	
PLK2	NS		NS	
PRC1	NS		NS	
SLC16A14	<0.001	C > pT > M	NS	
SLC22A1	NS		NS	
SLC22A3	NS		NS	
SLC22A4	NS		NS	
SLC22A5	0.002	C > pT > M	NS	
SLC22A18	0.013	C < pT < M	NS	
SLC31A1	0.009	C < pT < M	NS	
SLC31A2	NS		<0.001	pT < M
SLC47A1	NS		NS	
SOD2	NS		0.010	pT < M
SOD3	NS		NS	
TP53	NS		NS	
TRAP1	<0.001	C > pT > M	NS	

Footnotes:

p-Value by the Kruskal-Wallis (comparison C *vs.* pT *vs.* M) or the Mann-Whitney (comparison pT *vs.* M) tests

C = controls, pT = primary tumors, M = metastases

NS = not significant

Genes that were deregulated both in the comparison (A) C *vs.* pT *vs.* M and (B) pT *vs.* M are highlighted in grey.

Table S3: Significant differences in gene expression levels between primary tumors and intraperitoneal metastases in comparison of (A) paired and (B) non-paired tissue samples

(A)

Gene	p-Value	p-Value$_{ADJ}$	Trend
ABCA2	0.021	0.108	pT < M
ABCA13	0.021	0.108	pT < M
ABCC2	0.021	0.108	pT < M
ABCC6	0.021	0.108	pT < M

(B)

Gene	p-Value	p-Value$_{ADJ}$	Trend
ABCA1	0.019	0.183	pT < M
ABCA7	0.015	0.166	pT < M
ABCC2	0.013	0.166	pT < M
ESR2	0.014	0.166	pT > M
GLRX	0.008	0.166	pT < M
MSH2	0.004	0.122	pT > M
NR1H4	0.044	0.262	pT > M
PMS1	0.029	0.210	pT > M
SLC31A2	0.002	0.100	pT < M
SOD2	0.025	0.205	pT < M
TRAP1	0.037	0.244	pT > M

Footnotes:

p-Value by the sign (paired samples) or the Mann-Whitney (non- paired samples) tests

p-Value$_{ADJ}$ – adjusted by the FDR test

pT = primary tumors, M = metastases

The gene that was deregulated both in the comparison of (A) paired samples and (B) non-paired samples is highlighted in grey.

Table S4: Significant associations between gene expression and progression-free survival of patients with intraperitoneal EOC metastases

Gene	p-Value	p-Value$_{Cox}$	HR	CI
ABCA2	0.014	0.024	4.77	1.23 – 18.57
ABCA8	0.012	0.021	4.93	1.27 – 19.19
ABCA9	0.014	0.021	4.93	1.27 – 19.19
ABCA10	0.039	0.021	4.93	1.27 – 19.19
ABCB1	0.043	0.059	3.62	0.95 – 13.74
ABCC9	0.012	0.021	4.93	1.27 – 19.19
ABCG2	0.049	0.065	3.52	0.93 – 13.34
ATP7A	0.012	0.012	4.93	1.27 – 19.19
SLC16A14	0.012	0.021	4.93	1.27 – 19.19
SOD3	0.012	0.021	4.93	1.27 – 19.19

Footnotes:

p-Value by the log rank test

p-Value$_{Cox}$ by the Cox regression

HR = hazard risk

CI = 95% confidence interval for low gene expression in intraperitoneal metastases