

**Supplementary Table 1a. Molecular profile associated to a *BRCA1* mutation in NOSEs**

<b>Probe set</b>	<b>Gene Symbol (HUGO)</b>	<b>Entrez Gene ID</b>	<b>Gene Description</b>	<b>Cytoband (HUGO)</b>	<b>T-Statistic</b>	<b>Q-Value</b>
X51441_s_at	<i>SAA2</i>	6289	serum amyloid A2	11p15.1-p14	6.76	0.0446
X78711_at	<i>GK3P</i>	2713	glycerol kinase 3 pseudogene	4q32.1	7.13	0.0345
L15326_s_at	<i>PTGS2</i>	5743	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	1q25.2-q25.3	7.91	0.0173
X51441_at	<i>SAA2</i>	6289	serum amyloid A2	11p15.1-p14	8.25	0.0173
D28235_s_at	<i>PTGS2</i>	5743	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	1q25.2-q25.3	8.95	0.0159

**Supplementary Table 1b. Molecular profile associated to a *BRCA2* mutation in NOSEs**

Probe set	Gene Symbol (HUGO)	Entrez Gene ID	Gene Description	Cytoband (HUGO)	T-Statistic	Q-Value
AB002365_at	PRUNE2	158471	prune homolog 2 (Drosophila)	9q21.13	-8.23	0.019
L33075_at	IQGAP1	8826	IQ motif containing GTPase activating protein 1	15q26.1	-6.58	0.026
Z24724_at	ATP13A3	79572	ATPase type 13A3	3q29	-6.55	0.026
D63998_at	MAN2A1	4124	mannosidase, alpha, class 2A, member 1	5q21-q22	-6.35	0.03
U53445_at	FILIP1L	11259	filamin A interacting protein 1-like	3q12.1	-5.84	0.034
U44975_at	KLF6	1316	Kruppel-like factor 6	10p15	-5.82	0.034
D87075_at	SLC23A2	9962	solute carrier family 23 (nucleobase transporters), member 2	20p13	-5.46	0.045
X03484_at	RAF1	5894	v-raf-1 murine leukemia viral oncogene homolog 1	3p25	5.37	0.046
L24774_s_at	DCI	1632	dodecenoyl-Coenzyme A delta isomerase (3,2 trans-enoyl-Coenzyme A isomerase)	16p13.3	5.39	0.046
X13546_rna1_at	HMG2	3151	high-mobility group nucleosomal binding domain 2	1p36.1	5.39	0.046
U90426_at	DDX39	10212	DEAD (Asp-Glu-Ala-Asp) box polypeptide 39	19p13.12	5.41	0.046
X56997_rna1_at	UBA52	7311	ubiquitin A-52 residue ribosomal protein fusion product 1	19p13.1-p12	5.47	0.045
U33849_at	PCSK7	9159	proprotein convertase subtilisin/kexin type 7	11q23-q24	5.48	0.045
U25956_at	SELPLG	6404	selectin P ligand	12q24	5.48	0.045
S74728_at	ALDH7A1	501	aldehyde dehydrogenase 7 family, member A1	5q31	5.68	0.038
J02888_at	NQO2	4835	NAD(P)H dehydrogenase, quinone 2	6pter-q12	5.70	0.038

X17620_at	NME1	4830	non-metastatic cells 1, protein (NM23A) expressed in	17q21.3	5.80	0.034
U09584_at	TMEM115	11070	transmembrane protein 115	3p21.3	5.81	0.034
L12711_s_at	TKT	7086	transketolase (Wernicke-Korsakoff syndrome)	3p14.3	5.95	0.033
U73514_at	HSD17B10	3028	hydroxysteroid (17-beta) dehydrogenase 10	Xp11.2	5.97	0.033
L33842_rna1_at	IMPDH2	3615	IMP (inosine monophosphate) dehydrogenase 2	3p21.2	5.99	0.033
X89750_at	TGIF1	7050	TGFB-induced factor homeobox 1	18p11.3	6.00	0.033
M60784_s_at	SNRPA	6626	small nuclear ribonucleoprotein polypeptide A	19q13.1	6.06	0.033
U65404_at	KLF1	10661	Kruppel-like factor 1 (erythroid)	19p13.13- p13.12	6.07	0.033
M29971_at	MGMT	4255	O-6-methylguanine-DNA methyltransferase	10q26	6.18	0.033
U44772_at	PPT1	5538	palmitoyl-protein thioesterase 1 (ceroid-lipofuscinosis, neuronal 1, infantile)	1p32	6.25	0.032
X13973_at	RNH1	6050	ribonuclease/angiogenin inhibitor 1	11p15.5	6.50	0.026
M33197_3_at	GAPDH	2597	glyceraldehyde-3-phosphate dehydrogenase	12p13	6.53	0.026
U41371_at	SF3B2	10992	splicing factor 3b, subunit 2, 145kDa	11q13.1	6.55	0.026
M30448_s_at	FBL	2091	fibrillarlin	19q13.1	6.61	0.026
M94345_at	CAPG	822	capping protein (actin filament), gelsolin-like	2p11.2	6.72	0.026
M21142_cds2_s_at	GNAS	2778	GNAS complex locus	20q13.3	6.84	0.026
X76057_at	MPI	4351	mannose phosphate isomerase	15q22-qter	7.11	0.026
U43286_at	SEPHS2	22928	selenophosphate synthetase 2	16p11.2	7.28	0.026
U14968_at	RPL27A	6157	ribosomal protein L27a	11p15	8.17	0.019

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