

ASPN and GJB2 Are Implicated in the Mechanisms of Invasion of Ductal Breast Carcinomas

Bàrbara Castellana, et al.

Supplementary Table S1. Up-regulated genes in IDC versus DCIS

Gene Symbol	Gene Title	logFC	Pvalue
Cell adhesión			
GJB2	Gap junction protein, beta 2, 26kDa (Connexin 26)	0,611	1,10E+08
Extracelullar matrix-receptor interaction and focal adhesion (epithelial-mesenchymal transition)			
COL11A1	Collagen, type XI, alpha 1	1,299E+14	1,71E+08
COL10A1	Collagen, type X, alpha 1 (degraded by MMP13)	1,022E+14	2,73E+09
FN1	Fibronectin 1	0,950	3,52E+09
COL12A1	Collagen, type XII, alpha 1	0,981	6,12E+09
MMP13	Matrix metalloproteinase 13 (collagenase 3)	1,022E+14	7,33E+09
THBS2	Thrombospondin 2	0,854	9,80E+08
SPARC	Secreted protein, acidic, cysteine-rich (osteonectin)	0,684	1,24E-04
ASPN	Asporin	1,135E+14	1,82E-04
Extracellular matrix, cell motility			
PLAUR	Plasminogen activator, urokinase receptor	0,422	1,17E+09
PLAU	Plasminogen activator, urokinase	0,690	2,30E-04
MMP11	Matrix metalloproteinase 11 (stromelysin 3)	0,880	5,39E+09
MMP14	Matrix metalloproteinase 14 (membrane-inserted)	0,631	2,08E-04
Actin, calcium and metal ion binding transport			
GPC6	Glypican 6	0,613	3,45E+09
ADAMTS16	ADAM metalloproteinase with thrombospondin type 1 motif, 16	0,386	2,06E-04
SLC24A2	Solute carrier family 24 (sodium /potassium/calcium exchanger)member 2	0,593	2,52E-04
BGN	Biglycan	0,762	8,95E+09
Calcium ion and ATP binding			
CALU	Calumenin	0,430	8,41E+07
KIF26B	Kinesin family member 26B	0,460	5,20E+09
Cell cycle, cell differentiation			
INHBA	Inhibin, beta A	0,869	1,67E+09
Signal transducing			
RGS16	Regulator of G-protein signaling16	0,481	1,14E+09
ADORA3	Adenosine A3 receptor	0,442	2,80E+09
PRR5L	Proline rich 5 like	0,361	1,35E-04
SPSB1	SplA/ ryanodine receptor domain and SOCS box containing 1	0,384	2,21E-04
Apoptosis			
UNC5B	Unc-5 homolog B (C elegans)	0,407	4,67E+09
Peptidase inhibitor activity			
CST4	Cystatin S	0,297	1,16E-04
Intermediate filament protein			
CST4	Cystatin S	0,297	1,16E-04
Hydrolase activity			
PPAPDC1A	Phosphatidic acid phosphatase type 2 domain containing 1a	0,642	6,90E+08
Tumor growth			
ST6GAL2	ST6 beta-galactosamide alpha-2,6-sialyltransferase 2	0,493	4,54E+09
ENPP2	Ectonucleotidepyrophosphatase/phosphodiesterase 2 (Autotaxin)	-0,843	7,33E+09
Other			
KIAA1199	KIAA1199	0,537	4,54E+09

Data presented as a log₂ (fold change) of invasive ductal carcinoma (IDC) relative to ductal carcinoma *in situ* (DCIS).

Supplementary Table S2. Down-regulated genes in IDC versus DCIS

Gene Symbol	Gene Title	logFC	Pvalue
<i>Oxidation / Reduction</i>			
ADH1C	Alcohol Dehydrogenase 1C (class I), gamma polypeptide	-0,999	2,61E+09
FMO2	Flavin containing monooxygenase 2 (non-functional)	-1,08E+14	5,47E+08
<i>Signal transducing</i>			
OR5P2	Olfactory receptor, family 5, subfamily P, member 2	-0,632	2,069E-04
<i>Metabolism and enzyme activity</i>			
ACACB	Acetyl-Coenzyme A carboxylase beta	-0,679	6,89E+09
PAMR1	Peptidase domain containing associated with muscle regeneration 1	-0,688	3,85E+09
OVCH2	Ovochymase 2	-0,681	2,164E-04
ALPL	Alkaline phosphatase, liver/bone/kidney	-0,435	1,082E-04
<i>Cell component movement</i>			
SERPINB5	Serpin peptidase inhibitor, clade B (ovalbumin), member 5 (Maspin)	-0,644	2,227E-04
<i>Intermediate filament proteins</i>			
KRT5	Keratin 5	-0,988	2,04E-04
<i>Cell cycle regulation, proliferation and signaling</i>			
LIFR	Leukemia inhibitory factor receptor alpha	-0,768	2,63E+09
<i>Growth factor activity</i>			
EFEMP1	EGF-containing fibulin-like extracellular matrix protein 1	-0,701	5,53+09
<i>Cell differentiation</i>			
IGSF10	Immunoglobulin superfamily, member 10	-0,658	2,08E+09
NTRK2	Neurotrophic tyrosine kinase, receptor, type 2	-0,634	1,729E-04
<i>ATP binding</i>			
ABCA10	ATP-binding cassette, sub-family A (ACB1), member 10	-0,848	8,75E+09
PDK4	Pyruvate dehydrogenase kinase, isozyme 4	-0,944	8,12E+09
<i>Cell adhesion</i>			
LYVE 1	Lymphatic vessel endothelial hyaluronan receptor 1	-0,799	1,54E+09
TNXB	Tenascin XB	-0,495	1,99E+09
TNXA	Tenascin XA pseudogene	-0,518	1,518E-04
TNXB	Tenascin XB	-0,641	1,20E+09
F8	Coagulation factor VIII, procoagulant component	-0,441	2,54E+08
<i>Extracellular matrix</i>			
VIT	Vitronectin	-0,348	1,560E-04
<i>Lipid metabolism</i>			
ALB	Albumin	-0,350	1,893E-04
PLA2G6	Phospholipase A2, group VI (cytosolic, calcium-independent)	-0,329	7,90E+09
<i>Wnt signaling</i>			
RHOU	Ras homolog gene family, member U	-0,371	1,230E-04
<i>Other</i>			
SH3BGRL2	SH3 domain binding glutamic acid-rich protein like 2	-0,549	8,786E+09

Data presented as a log₂ (fold change) of invasive ductal carcinoma (IDC) relative to ductal carcinoma *in situ* (DCIS).