

**Supplementary Table S1 Panel of genes selected. Selection of 184 genes that may be relevant for the process of endometrial receptivity and the immune response associated to embryo implantation.**

Gene symbol	Gene name	Reference
ABCC3	ATP-binding cassette, subfamily C (CFTR/MRP), member 3	<a href="#">Díaz-Gimeno et al. (2011)</a>
ACTA1	Actin, alpha 1, skeletal muscle	<a href="#">Altmäe et al. (2010)</a>
ALDH1A3	Aldehyde dehydrogenase 1 family, member A3	<a href="#">Haouzi et al. (2009)</a>
AMIGO2	Adhesion molecule with Ig-like domain 2	<a href="#">Díaz-Gimeno et al. (2011)</a>
ANGPTL1	Angiopoietin-like 1	<a href="#">Haouzi et al. (2009)</a>
ANXA2	Annexin A2	<a href="#">Dominguez et al. (2009)</a>
ANXA4	Annexin A4	<a href="#">Ponnampalam and Rogers (2006)</a>
APOD	Apolipoprotein D	<a href="#">Haouzi et al. (2009)</a>
APOE	Apolipoprotein E	<a href="#">Allegra et al. (2012)</a>
APOL2	Apolipoprotein L, 2	<a href="#">Chen et al. (2015)</a>
AQP3	Aquaporin 3 (Gill blood group)	<a href="#">Díaz-Gimeno et al. (2011)</a>
AREG	Amphiregulin	<a href="#">Barnea et al. (2012)</a>
ARG2	Arginase 2	<a href="#">Díaz-Gimeno et al. (2011)</a>
ARHGDI1	Rho GDP dissociation inhibitor (GDI) alpha	<a href="#">Chen et al. (2009)</a>
ATP5B	ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, beta polypeptide	<a href="#">Sadek et al. (2012)</a>
BTC	Betacellulin	<a href="#">Barnea et al. (2012)</a>
C10ORF10	Chromosome 10 open reading frame 10	<a href="#">Watanabe et al. (2005)</a>
C2CD4B	C2 calcium-dependent domain containing 4B	<a href="#">Haouzi et al. (2009)</a>
C4BPA	Complement component 4 binding protein, alpha	<a href="#">Tapia et al. (2011)</a>
CALCA	Calcitonin-related polypeptide alpha	<a href="#">Otsuka et al. (2007)</a>
CALR	Calreticulin	<a href="#">Parmar et al. (2009)</a>
CAPN6	Calpain 6	<a href="#">Altmäe et al. (2010)</a>
CATSPERB	Catsper channel auxiliary subunit beta	<a href="#">Grewal et al. (2008)</a>
CCL2	Chemokine (C-C motif) ligand 2	<a href="#">Barnea et al. (2012)</a>
CCR7	Chemokine (C-C motif) receptor 7	<a href="#">Altmäe et al. (2010)</a>
CD55	CD55 molecule, decay accelerating factor for complement (Cromer blood group)	<a href="#">Mirkin et al. (2005)</a>
CDA	Cytidine deaminase	<a href="#">Díaz-Gimeno et al. (2011)</a>
CDH1	Cadherin 1, type 1, E-cadherin (epithelial)	<a href="#">Gao et al. (2012)</a>
CIR1	Corepressor interacting with RBPJ, 1	<a href="#">Ruiz-Alonso et al. (2012)</a>
CLDN4	Claudin 4	<a href="#">Haouzi et al. (2009)</a>
CLIC1	Chloride intracellular channel 1	<a href="#">Chen et al. (2009)</a>
CLU	Clusterin	<a href="#">Teles et al. (2013)</a>
CMTM5	CKLF-like MARVEL transmembrane domain containing 5	<a href="#">Altmäe et al. (2010)</a>
COL16A1	Collagen, type XVI, alpha 1	<a href="#">Hannan et al. (2008)</a>
CRHR2	Corticotropin releasing hormone receptor 2	<a href="#">Zoumakis et al. (2009)</a>
CRISP3	Cysteine-rich secretory protein 3	<a href="#">Díaz-Gimeno et al. (2011)</a>
CSF1	Colony-stimulating factor 1 (macrophage)	<a href="#">Dimitriadis et al. (2005)</a>
CSF3	Colony-stimulating factor 3 (granulocyte)	<a href="#">Petitbarat et al. (2011)</a>
CSRP2	Cysteine and glycine-rich protein 2	<a href="#">Liu et al. (2008)</a>
CTNNA2	Catenin (cadherin-associated protein), alpha 2	<a href="#">Altmäe et al. (2010)</a>
CXCL1	Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)	<a href="#">Hess et al. (2007)</a>
CXCL14	Chemokine (C-X-C motif) ligand 14	<a href="#">Mokhtar et al. (2010)</a>

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**Supplementary Table S1** *Continued*

Gene symbol	Gene name	Reference
CXCL6	Chemokine (C-X-C motif) ligand 6	<a href="#">Altmäe et al. (2010)</a>
DEFB1	Dickkopf WNT signaling pathway inhibitor 1	<a href="#">Das et al. (2007)</a>
DKK1	Dickkopf WNT signaling pathway inhibitor 1	<a href="#">Macklon et al. (2008)</a>
EGF	Epidermal growth factor	<a href="#">Chobotova et al. (2005)</a>
EPHB3	EPH receptor B3	<a href="#">Díaz-Gimeno et al. (2011)</a>
EREG	Epiregulin	<a href="#">Barnea et al. (2012)</a>
ESR1	Estrogen receptor 1	<a href="#">Gao et al. (2012)</a>
ESR2	Estrogen receptor 2 (ER beta)	<a href="#">Altmäe et al. (2010)</a>
EZR	Ezrin	<a href="#">Chen et al. (2009)</a>
FAM3B	Family with sequence similarity 3, member B	<a href="#">Altmäe et al. (2010)</a>
FAM3D	Family with sequence similarity 3, member D	<a href="#">Altmäe et al. (2010)</a>
FASLG	Fas ligand (TNF superfamily, member 6)	<a href="#">Kalantaridou et al. (2007)</a>
FGF7	Fibroblast growth factor 7	<a href="#">Altmäe et al. (2012)</a>
FOXO1	Forkhead box O1	<a href="#">Grinius et al. (2006)</a>
FOXP3	Forkhead box P3	<a href="#">Jasper et al. (2006)</a>
FUT4	Fucosyltransferase 4 (alpha (1,3) fucosyltransferase, myeloid-specific)	<a href="#">Ponnampalam and Rogers (2008)</a>
FZD5	Frizzled family receptor 5	<a href="#">Krikun et al. (2005)</a>
GABARAPLI	GABA(A) receptor-associated protein like 1	<a href="#">Díaz-Gimeno et al. (2011)</a>
GADD45A	Growth arrest and DNA-damage-inducible, alpha	<a href="#">Díaz-Gimeno et al. (2011)</a>
GAST	Gastrin	<a href="#">Horcajadas et al. (2005)</a>
GDF15	Growth differentiation factor 15	<a href="#">Díaz-Gimeno et al. (2011)</a>
GJA4	Gap junction protein, alpha 4, 37 kDa	<a href="#">Ruiz-Alonso et al. (2012)</a>
GNLY	Granulysin	<a href="#">Díaz-Gimeno et al. (2011)</a>
GPX3	Glutathione peroxidase 3 (plasma)	<a href="#">Horcajadas et al. (2008)</a>
HBA1	Hemoglobin, alpha 1	<a href="#">Altmäe et al. (2010)</a>
HBEGF	Heparin-binding EGF-like growth factor	<a href="#">Aghajanova et al. (2008)<sup>a</sup></a>
HBG1	Hemoglobin, gamma A	<a href="#">Altmäe et al. (2010)</a>
HMBS	Hydroxymethylbilane synthase	<a href="#">Vestergaard et al. (2011)</a>
HOXA10	Homeobox A10	<a href="#">Aghajanova et al. (2008b)</a>
HOXA11	Homeobox A11	<a href="#">Lynch et al. (2009)</a>
HOXB7	Homeobox B7	<a href="#">Ruiz-Alonso et al. (2012)</a>
HPRT1	Hypoxanthine phosphoribosyltransferase 1	<a href="#">Vestergaard et al. (2011)</a>
HPSE	Heparanase	<a href="#">Xu et al. (2007)</a>
ICAM1	Intercellular adhesion molecule 1	<a href="#">Zhao et al. (2010)</a>
ID4	Inhibitor of DNA binding 4, dominant negative helix-loop-helix protein	<a href="#">Díaz-Gimeno et al. (2011)</a>
IDH1	Isocitrate dehydrogenase 1 (NADP+), soluble	<a href="#">Díaz-Gimeno et al. (2011)</a>
IER3	Immediate early response 3	<a href="#">Díaz-Gimeno et al. (2011)</a>
IFNG	Interferon-gamma	<a href="#">Labarta et al. (2011)</a>
IGFBP1	Insulin-like growth factor binding protein 1	<a href="#">Fluhr et al. (2006)</a>
IGFBP3	Insulin-like growth factor binding protein 3	<a href="#">Horcajadas et al. (2008)</a>
IL10	Interleukin 10	<a href="#">Otsuka et al. (2007)</a>
IL11	Interleukin 11	<a href="#">Karpovich et al. (2005)</a>
IL15	Interleukin 15	<a href="#">Franchi et al. (2008)</a>
IL18	Interleukin 18 (interferon-gamma-inducing factor)	<a href="#">Ledee-Bataille et al. (2005)</a>
IL1B	Interleukin 1, beta	<a href="#">Dimitriadis et al. (2005)</a>
IL1RI	Interleukin 1 receptor, type 1	<a href="#">Bourdieu et al. (2012)</a>
IL2	Interleukin 2	<a href="#">Otsuka et al. (2007)</a>

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**Supplementary Table S1** *Continued*

Gene symbol	Gene name	Reference
IL21	Interleukin 21	<a href="#">Altmäe et al. (2010)</a>
IL4	Interleukin 4	Bersinger et al. (2008)
IL5	Interleukin 5 (colony-stimulating factor, eosinophil)	Teklenburg et al. (2010)
IL6	Interleukin 6 (interferon, beta 2)	Otsuka et al. (2007)
IL8	Interleukin 8	Hess et al. (2007)
ITGA2	Integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor)	Zhao et al. (2010)
ITGA8	Integrin, alpha 8	<a href="#">Altmäe et al. (2010)</a>
ITGA9	Integrin, alpha 9	Barnea et al. (2012)
ITGAV	Integrin, alpha V	Zhao et al. (2010)
ITGB1	Integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)	Zhao et al. (2010)
ITGB3	Integrin, beta 3 (platelet glycoprotein IIIa, antigen CD61)	Hannan et al. (2008)
KCNG1	Potassium voltage-gated channel, subfamily G, member 1	<a href="#">Díaz-Gimeno et al. (2011)</a>
LCPI	Lymphocyte cytosolic protein 1 (L-plastin)	Haouzi et al. (2009)
LEP	Leptin	Labarta et al. (2011)
LIF	Leukemia inhibitory factor	Dimitriadis et al. (2006)
LIFR	Leukemia inhibitory factor receptor alpha	Stavreus-Evers et al. (2006)
LPAR3	Lysophosphatidic acid receptor 3	Wei et al. (2009)
LRPPRC	Leucine-rich PPR-motif containing	Wanggren et al. (2007)
LRRC17	Leucine rich repeat containing 17	<a href="#">Díaz-Gimeno et al. (2011)</a>
LYPD3	LY6/PLAUR domain containing 3	<a href="#">Díaz-Gimeno et al. (2011)</a>
MAOA	Monoamine oxidase A	<a href="#">Díaz-Gimeno et al. (2011)</a>
MAP2K1	Mitogen-activated protein kinase kinase 1	Barnea et al. (2012)
MAP3K5	Mitogen-activated protein kinase kinase 5	Tapia et al. (2011)
MAPK1	Mitogen-activated protein kinase 1	<a href="#">Paiva et al. (2011)</a>
MAPK3	Mitogen-activated protein kinase 3	Barnea et al. (2012)
MAPK8	Mitogen-activated protein kinase 8	Barnea et al. (2012)
MFAP5	Microfibrillar associated protein 5	Haouzi et al. (2009)
MMP10	Matrix metalloproteinase 10 (stromelysin 2)	Zhao et al. (2010)
MMP2	Matrix metalloproteinase 2 (gelatinase A, 72 kDa gelatinase, 72 kDa type IV collagenase)	Skrzypczak et al. (2007)
MMP26	Matrix metalloproteinase 26	Pilka et al. (2006)
MMP8	Matrix metalloproteinase 8 (neutrophil collagenase)	<a href="#">Altmäe et al. (2010)</a>
MMP9	Matrix metalloproteinase 9 (gelatinase B, 92 kDa gelatinase, 92 kDa type IV collagenase)	Skrzypczak et al. (2007)
MT1E	Metallothionein 1E	Ruiz-Alonso et al. (2012)
MT1F	Metallothionein 1F	Ruiz-Alonso et al. (2012)
MT1G	Metallothionein 1G	<a href="#">Díaz-Gimeno et al. (2011)</a>
MT1H	Metallothionein 1H	Ruiz-Alonso et al. (2012)
MT1L	Metallothionein 1L	Ruiz-Alonso et al. (2012)
MT1X	Metallothionein 1X	Ruiz-Alonso et al. (2012)
MT2A	Metallothionein 2A	<a href="#">Díaz-Gimeno et al. (2011)</a>
MUC1	Mucin 1, cell surface associated	Horne et al. (2005)
MUC16	Mucin 16, cell surface associated	Gipson et al. (2008)
MUC4	Mucin 4, cell surface associated	Aghajanova et al. (2008b)
MUC5B	Mucin 5B, oligomeric mucus/gel-forming	<a href="#">Altmäe et al. (2010)</a>
NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	Barnea et al. (2012)
NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha	Barnea et al. (2012)
NFKBIE	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, epsilon	Barnea et al. (2012)
NNMT	Nicotinamide N-methyltransferase	Allegra et al. (2009)

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**Supplementary Table S1** *Continued*

Gene symbol	Gene name	Reference
OPRK1	Opioid receptor, kappa 1	<a href="#">Díaz-Gimeno et al. (2011)</a>
PAEP	Progestagen-associated endometrial protein	<a href="#">Stavreus-Evers et al. (2006)</a>
PGR	Progesterone receptor	<a href="#">Palomino et al. (2005)</a>
PGRMC1	Progesterone receptor membrane component 1	<a href="#">Chen et al. (2009)</a>
PLA2G16	Phospholipase A2, group XVI	<a href="#">Díaz-Gimeno et al. (2011)</a>
PLA2G4A	Phospholipase A2, group IVA (cytosolic, calcium-dependent)	<a href="#">Achache et al. (2010)</a>
PPP2R2C	Protein phosphatase 2, regulatory subunit B, gamma	<a href="#">Barnea et al. (2012)</a>
PRDX1	Peroxiredoxin 1	<a href="#">Aghajanova et al. (2008b)</a>
PRDX2	Peroxiredoxin 2	<a href="#">Aghajanova et al. (2008b)</a>
PRKCG	Protein kinase C, gamma	<a href="#">Altmäe et al. (2010)</a>
PROK1	Prokineticin 1	<a href="#">Evans et al. (2008)</a>
PTGER3	Prostaglandin E receptor 3 (subtype EP3)	<a href="#">Catalano et al. (2011)</a>
PTGFR	Prostaglandin F receptor (FP)	<a href="#">Catalano et al. (2011)</a>
PTGS1	Prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase)	<a href="#">Aghajanova et al. (2008b)</a>
PTGS2	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	<a href="#">Aghajanova et al. (2008b)</a>
PTPRZ1	Protein tyrosine phosphatase, receptor-type, Z polypeptide 1	<a href="#">Barnea et al. (2012)</a>
RAC1	Ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1)	<a href="#">Grewal et al. (2008)</a>
RACGAP1	Rac GTPase activating protein 1	<a href="#">Grewal et al. (2008)</a>
RHOA	Ras homolog family member A	<a href="#">Heneweer et al. (2005)</a>
RPL13A	Ribosomal protein L13a	<a href="#">Vestergaard et al. (2011)</a>
S100A1	S100 calcium binding protein A1	<a href="#">Otsuka et al. (2007)</a>
S100A10	S100 calcium binding protein A10	<a href="#">Haouzi et al. (2009)</a>
S100A2	S100 calcium binding protein A2	<a href="#">Altmäe et al. (2010)</a>
S100P	S100 calcium binding protein P	<a href="#">Otsuka et al. (2007)</a>
SCGB2A2	Secretoglobin, family 2A, member 2	<a href="#">Díaz-Gimeno et al. (2011)</a>
SCGB3A1	Secretoglobin, family 3A, member 1	<a href="#">Altmäe et al. (2010)</a>
SDHA	Succinate dehydrogenase complex, subunit A, flavoprotein (Fp)	<a href="#">Vestergaard et al. (2011)</a>
SELL	Selectin L	<a href="#">Lai et al. (2005)</a>
SERPINA1	Serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1	<a href="#">Parmar et al. (2009)</a>
SERPING1	Serpin peptidase inhibitor, clade G (C1 inhibitor), member 1	<a href="#">Díaz-Gimeno et al. (2011)</a>
SGK1	Serum/glucocorticoid regulated kinase 1	<a href="#">Feroze-Zaidi et al. (2007)</a>
SLPI	Secretory leukocyte peptidase inhibitor	<a href="#">Mirkin et al. (2005)</a>
SOD2	Superoxide dismutase 2, mitochondrial	<a href="#">Díaz-Gimeno et al. (2011)</a>
SPDEF	SAM pointed domain containing ETS transcription factor	<a href="#">Díaz-Gimeno et al. (2011)</a>
SPPI	Secreted phosphoprotein 1 (osteopontin)	<a href="#">Mirkin et al. (2005)</a>
STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)	<a href="#">Catalano et al. (2005)</a>
STC1	Stanniocalcin 1	<a href="#">Allegra et al. (2009)</a>
STMN1	Stathmin 1	<a href="#">Dominguez et al. (2009)</a>
TAGLN2	Transgelin 2	<a href="#">Haouzi et al. (2009)</a>
TFF3	Trefoil factor 3 (intestinal)	<a href="#">Casado-Vela et al. (2009)</a>
TGFB1	Transforming growth factor, beta 1	<a href="#">Skrzypczak et al. (2007)</a>
TNC	Tenascin	<a href="#">Zhao et al. (2010)</a>
TNF	Tumor necrosis factor	<a href="#">Chobotova et al. (2005)</a>
TNFRSF11B	Tumor necrosis factor receptor superfamily, member 11b	<a href="#">Barnea et al. (2012)</a>
TSPAN8	Tetraspanin 8	<a href="#">Díaz-Gimeno et al. (2011)</a>
VCAM1	Vascular cell adhesion molecule 1	<a href="#">Zhao et al. (2010)</a>
VEGFA	Vascular endothelial growth factor A	<a href="#">Jee et al. (2009)</a>
WISP2	WNT1 inducible signaling pathway protein 2	<a href="#">Altmäe et al. (2010)</a>

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