

**Supplementary Table 2. 86 ER cofactors identified from the literature.**

<i>Gene</i>	<i>Gene Name</i>	<i>Reference</i>
<i>ACTL6A</i>	actin like 6A	Jeong <i>et al.</i> (2012)
<i>ASH2L</i>	ASH2 like histone lysine methyltransferase complex subunit	Foulds <i>et al.</i> (2013)
<i>BAG1</i>	BCL2 associated athanogene 1	Li <i>et al.</i> (2012)
<i>BRCA1</i>	BRCA1, DNA repair associated	Li <i>et al.</i> (2012)
<i>CALCOCO1</i>	calcium binding and coiled-coil domain 1	Li <i>et al.</i> (2012)
<i>CALM1</i>	calmodulin 1	Li <i>et al.</i> (2012)
<i>CALM2</i>	calmodulin 2	Li <i>et al.</i> (2012)
<i>CALM3</i>	calmodulin 3	Li <i>et al.</i> (2012)
<i>CARM1</i>	coactivator associated arginine methyltransferase 1	Li <i>et al.</i> (2012)
<i>CCNC</i>	cyclin C	Foulds <i>et al.</i> (2013)
<i>CCND1</i>	cyclin D1	Li <i>et al.</i> (2012)
<i>CDK8</i>	cyclin dependent kinase 8	Foulds <i>et al.</i> (2013)
<i>CEBPB</i>	CCAAT/enhancer binding protein beta	Li <i>et al.</i> (2012)
<i>CREBBP</i>	CREB binding protein	Li <i>et al.</i> (2012)
<i>CTBP1</i>	C-terminal binding protein 1	Foulds <i>et al.</i> (2013)
<i>CTBP2</i>	C-terminal binding protein 2	Foulds <i>et al.</i> (2013)
<i>DDX5</i>	DEAD-box helicase 5	Li <i>et al.</i> (2012)
<i>DDX54</i>	DEAD-box helicase 54	Li <i>et al.</i> (2012)
<i>EHMT2</i>	euchromatic histone lysine methyltransferase 2	Jeong <i>et al.</i> (2012)
<i>EP300</i>	E1A binding protein p300	Li <i>et al.</i> (2012)
<i>ESR2</i>	estrogen receptor 2	Li <i>et al.</i> (2012)
<i>FLII</i>	flightless I, actin remodelling protein	Jeong <i>et al.</i> (2012)
<i>FOXA1</i>	forkhead box A1	Carroll <i>et al.</i> (2005); Laganière <i>et al.</i> (2005)
<i>FOXO1</i>	forkhead box O1	Li <i>et al.</i> (2012)
<i>GATA3</i>	GATA binding protein 3	Theodorou <i>et al.</i> (2013)
<i>GATA4</i>	GATA binding protein 4	Miranda-Carboni <i>et al.</i> (2011)
<i>GREB1</i>	growth regulation by estrogen in breast cancer 1	Mohammed <i>et al.</i> (2013)
<i>HOXB7</i>	homeobox B7	Jin <i>et al.</i> (2015)
<i>KAT5</i>	lysine acetyltransferase 5	Li <i>et al.</i> (2012)
<i>KMT2A</i>	lysine methyltransferase 2a	Jeong <i>et al.</i> (2012)
<i>LCOR</i>	ligand dependent nuclear receptor corepressor	Li <i>et al.</i> (2012)
<i>MED1</i>	mediator complex subunit 1	Foulds <i>et al.</i> (2013)
<i>MED12</i>	mediator complex subunit 12	Foulds <i>et al.</i> (2013)
<i>MED13</i>	mediator complex subunit 13	Li <i>et al.</i> (2012)
<i>MED26</i>	mediator complex subunit 26	Foulds <i>et al.</i> (2013)
<i>MTA1</i>	metastasis associated 1	Li <i>et al.</i> (2012)
<i>NCOA1</i>	nuclear receptor coactivator 1	Li <i>et al.</i> (2012)
<i>NCOA2</i>	nuclear receptor coactivator 2	Li <i>et al.</i> (2012)
<i>NCOA3</i>	nuclear receptor coactivator 3	Li <i>et al.</i> (2012)
<i>NCOA4</i>	nuclear receptor coactivator 4	Li <i>et al.</i> (2012)
<i>NCOA6</i>	nuclear receptor coactivator 6	Li <i>et al.</i> (2012)
<i>NCOA7</i>	nuclear receptor coactivator 7	Li <i>et al.</i> (2012)
<i>NCOR1</i>	nuclear receptor corepressor 1	Li <i>et al.</i> (2012)
<i>NCOR2</i>	nuclear receptor corepressor 2	Li <i>et al.</i> (2012)
<i>NEDD4</i>	neural precursor cell expressed, developmentally down-regulated 4, E3 ubiquitin protein ligase	Li <i>et al.</i> (2012)
<i>NEDD8</i>	neural precursor cell expressed, developmentally down-regulated 8	Li <i>et al.</i> (2012)
<i>NR0B1</i>	nuclear receptor subfamily 0 group B member 1	Li <i>et al.</i> (2012)

<i>NR0B2</i>	nuclear receptor subfamily 0 group B member 2	Li <i>et al.</i> (2012)
<i>NR2C1</i>	nuclear receptor subfamily 2 group C member 1	Li <i>et al.</i> (2012)
<i>NR2F1</i>	nuclear receptor subfamily 2 group F member 1	Li <i>et al.</i> (2012)
<i>NRIP1</i>	nuclear receptor interacting protein 1	Li <i>et al.</i> (2012)
<i>NSD1</i>	nuclear receptor binding SET domain protein 1	Li <i>et al.</i> (2012)
<i>OPN1LW</i>	opsin 1 (cone pigments), long-wave-sensitive	Thenot <i>et al.</i> (1999)
<i>PBX1</i>	PBX homeobox 1	Magnani <i>et al.</i> (2011)
<i>PELP1</i>	proline, glutamate and leucine rich protein 1	Li <i>et al.</i> (2012)
<i>PHB2</i>	prohibitin 2	Li <i>et al.</i> (2012)
<i>PLK1</i>	polo like kinase 1	Wierer <i>et al.</i> (2013)
<i>PPARG</i>	peroxisome proliferator activated receptor gamma	Li <i>et al.</i> (2012)
<i>PPARGC1A</i>	PPARG coactivator 1 alpha	Li <i>et al.</i> (2012)
<i>PPARGC1B</i>	PPARG coactivator 1 beta	Li <i>et al.</i> (2012)
<i>PRMT1</i>	protein arginine methyltransferase 1	Li <i>et al.</i> (2012)
<i>PYCARD</i>	PYD and CARD domain containing	Li <i>et al.</i> (2012)
<i>RBFOX2</i>	RNA binding protein, fox-1 homolog 2	Li <i>et al.</i> (2012)
<i>RBM14</i>	RNA binding motif protein 14	Li <i>et al.</i> (2012)
<i>RBM23</i>	RNA binding motif protein 23	Li <i>et al.</i> (2012)
<i>RBM39</i>	RNA binding motif protein 39	Li <i>et al.</i> (2012)
<i>RPL7</i>	ribosomal protein L7	Li <i>et al.</i> (2012)
<i>SAFB</i>	scaffold attachment factor B	Li <i>et al.</i> (2012)
<i>SAFB2</i>	scaffold attachment factor B2	Li <i>et al.</i> (2012)
<i>SETD1A</i>	SET domain containing 1A	Jeong <i>et al.</i> (2012)
<i>SHARPIN</i>	SHANK associated RH domain interactor	Li <i>et al.</i> (2012)
<i>SIAH2</i>	siah E3 ubiquitin protein ligase 2	Li <i>et al.</i> (2012)
<i>SMAD4</i>	SMAD family member 4	Li <i>et al.</i> (2012)
	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4	
<i>SMARCA4</i>	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1	Jeong <i>et al.</i> (2012)
<i>SMARCE1</i>	SNW domain containing 1	Li <i>et al.</i> (2012)
<i>SNW1</i>	spen family transcriptional repressor	Li <i>et al.</i> (2012)
<i>SPEN</i>	steroid receptor RNA activator 1	Légaré <i>et al.</i> (2015)
<i>SRA1</i>	SPT6 homolog, histone chaperone	Li <i>et al.</i> (2012)
<i>SUPT6H</i>	transcriptional adaptor 3	Li <i>et al.</i> (2012)
<i>TADA3</i>	TATA-box binding protein associated factor, RNA polymerase I subunit B	Foulds <i>et al.</i> (2013)
<i>TAF1B</i>	transcription factor AP-2 gamma	Li <i>et al.</i> (2012)
<i>TFAP2C</i>	transducin like enhancer of split 1	Tan <i>et al.</i> (2011)
<i>TLE1</i>	tripartite motif containing 24	Holmes <i>et al.</i> (2012)
<i>TRIM24</i>	ubiquitin protein ligase E3A	Li <i>et al.</i> (2012)
<i>UBE3A</i>	X-box binding protein 1	Li <i>et al.</i> (2012)
<i>XBP1</i>		Ding <i>et al.</i> (2003)

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