Table S1

FOXA1 binding site	Closest RefSeq gene	Distance to TSS of closest gene (bp)	Position relative to closest gene
#1	*SIK3*	2,855	within gene (intron 1)
#2	*KITLG*	218,377	downstream
#3	*BARX2*	89,596	upstream
#4	*NAV2*	14,613	within gene (intron 1)
#5	*CHKA*	38,608	within gene (intron 2)
#6	*CADM1*	416,317	upstream
#7	*AMOTL1*	59,525	upstream
#8	*ARNTL*	10,022	within gene (intron 1)

Table S2

FOXA1 binding site	Closest RefSeq gene	Distance to TSS of closest gene (bp)	Position relative to closest gene
#1	*Tle1*	32,477	upstream
#2	*Smc2*	7,207	upstream
#3	*Megf9*	24,492	within gene (intron 1)
#4	*Hus1*	39,909	downstream
#5	*Etaa1*	202,679	downstream
#6	*Efna5*	195,042	upstream
#7	*Lhcgr*	27,791	within gene (intron 6)
#8	*Sertad2*	95,914	within gene (intron 1)
#9	*A530088H08Rik*	154,761	upstream
#10	*Ltbp1 (variant 2)*	127,491	within gene (intron 7)
#11	*Pkdcc*	113,395	upstream

Primers used in Fig.1E

MCF7-specific #1	GCTTGTGATTATGCCCCTTT
	CAAAGGAGTGAGGGAGCAAC
MCF7-specific #2	TTTGTTTCCAGAAGCCTGGT
	GTGCAGCTGTCCAACAGGTA
MCF7-specific #3	CATTGTCTTGCACCATGCTC
	CAGCCAGTGGAAACTGTCAA
MCF7-specific #4	ACCTCCAAGAGGGAGAGGAG
	CTGTCCAGCCGGAGTTAGAG
MCF7-specific #5	GGGGCTGTTTCTTTGTGTGT
	GCGGCTTTGAGACAGAAGTT
MCF7-specific #6	CACGGAAACAGTGCTCTGAA
	AGGTTCTTCGTGCGTTCTGT
LNCaP-specific #1	TCAAGGCTGTGCTGATGACT
	TGCAGTTTATATTCTTGTGCTCTGA
LNCaP-specific #2	AGGCAAGCCCAAGTGACTAA
	ACCTAGGCTGTAAACTCATTGTG
LNCaP-specific #3	ATTTCTTGGATGCAAATGGA
	AACAGGCTGTATTCTCCTGTCC
LNCaP-specific #4	GCCGTCTTTTCATCTTCTCG
	GTCCTGGGAGCAGAAGTCAC
LNCaP-specific #5	AAGAAGTGCTCCAACGGAGA
	TTTTAGCCCTAATACACATCCACA
LNCaP-specific #6	TCTGCCAAGAATCTCAGCTTT
	CTCCCAGCTCTGTCCCATT
LNCaP-specific #7	TGCTGTGCCACATTAAGGAA
	AAATGGGAGTAGCACCGAAA
LNCaP-specific #8	CTGGTGAGATGGGGAACACT
	AGGCTGCTGGTGCATTAGAT
LNCaP-specific #9	ATTGGCAAAGCAGAATGGAC
	TTTCCTCCCTTCCCTTAGGA
LNCaP-specific #10	TCCTGAAGCAACAACAGCAG
	AGATCCTACTGGCTGCTCCA

Primers used in Fig.2A

MCF7-specific #3	AACGTGCTGCTTTTTCCACT
	TAGCAGCCCATTTCAACCTC
MCF7-specific #4	ACCTCCAAGAGGGAGAGGAG
	CTGTCCAGCCGGAGTTAGAG
MCF7-specific #5	CCCACGTGTGCTCACTTCTA
	ACCCTGACTCCTCACACACC
LNCaP-specific #6	CCCAATGGAAGAAACGTCCT
	GGTGGGAAAACCCCATTAAG
LNCaP-specific #8	CAGGAAACCTGGCACAAAAT
	GGTGACCGGCTGAACTAGAG
LNCaP-specific #10	TGGAGCAGCCAGTAGGATCT
	GGGATGTACAGGCAGACTGG
Negative control #1	GAGTGGCTGTGACTGCTGAC
	GCTGAGCCACTCTCCAGAAC
Negative control #2	GGGGCTGTTTCTTTGTGTGT
	GCGGCTTTGAGACAGAAGTT
Negative control #3	CTGGTGAGATGGGGAACACT
	CCCTGACTGTTCTGGTGGTT

Negative control #4	TCTTCAGAGATGCCGCTTTT	
	GGAAGGGAGGCAGATCCTAC	

Primers used in Fig.2B

Amplification primers

MCF7-specific #3	TTCCAAAATACAATATCTCCTCCT	Biotinylated
	TGGTTTTTGGTTTTAGGAATGTG	
MCF7-specific #5	TTTGAAGGGAAAATATGTAGGAAG	Biotinylated
	CAAAAACCTCCAAACCCCTATATT	
LNCaP-specific #8	ACCACCAAAACAATCAAAATTTAC	Biotinylated
	AGAAGGTTTGATTGGAAGAGTGT	
LNCaP-specific #10	TTTTCCCTCTAAACAACTCT	Biotinylated
	ATAGTAGGTGTTTTTGGAAGAG	

sequencing primers

MCF7-specific #3	TTAATAGGTGTATTATTTA
MCF7-specific #5	CCTATATTAAAAACCTAACA
LNCaP-specific #8	GAAATTGTGAAAGGTATATG
LNCaP-specific #10	ATAGTAGGTGTTTTTGGAAG

Primers used in Fig.2C	ChIP FOXA1 LNCaP-abl
UBE2C enhancer 1	TGCCTCTGAGTAGGAACAGGTAAGT
	TGCTTTTTCCATCATGGCAG
UBE2C enhancer 2	CCACAAACTCTTCTCAGCTGGG
	TTCTTTCCTTCCCTGTTACCCC
UBE2C promoter	TGCCCGAGGGAAATTGG
	CTTACTCCGCGTGGGAACA
KLK3 enhancer	TGGGACAACTTGCAAACCTG
	CCAGAGTAGGTCTGTTTTCAATCCA
Negative control	TCCAGGCCAGGTCTTCATAG
	CTCTTCTGGTGGGTGTGGAT

Primers used in Fig.2D	bisulfite FOXA1 LNCaP-abl	
Amplification primers		
UBE2C enhancer 1	TTTGAAATAGGGGTTGTTTAGGAA	Biotinylated
	ACAAAACAACACTCAACCTCTTA	
UBE2C enhancer 2 (CpG #1 & #2)	AAAATTTCCCCCTTCATTTT	Biotinylated
	GAATTTGGTTGAGTTTAAGGTAAG	
UBE2C enhancer 2 (CpG #3)	TGAGGTAGGAGAATGGTGTGAA	Biotinylated
	AACCCCATAATTTTCTTAATACAA	

sequencing primers

UBE2C enhancer 1	CAACACTCAACCTCTTAATT
	ATTTCAAACTTCTTAAAT
	AAAAACAAATATTAAAATCC
UBE2C enhancer 2 (CpG #1 & #2)	TATTTTATAGTAGTGATTGG
UBE2C enhancer 2 (CpG #3)	CCACAAACTCTTCTCAAC

Primers used in Fig.3C and F	
EGFR promoter	AAAGAAGGGAAAGGGGGAAG
	GGGTGCCCTGAGGAGTTAAT
CCND1 promoter	CGGGCTTTGATCTTTGCTTA
	ACTCCCCTGTAGTCCGTGTG

FOXA1 site #1	TGCACAACTGCATACCACAA	
	ATATGTGCGTGCGTGTGTTT	
FOXA1 site #2	TGTGGCTGAGCAGTTGTTTC	
	ATGGCAAAAGTGGAAGGAGA	
FOXA1 site #3	GGGAAGGAGGGACATTAAGC	
	CTTTGTTCCTCGAGCCATGT	
FOXA1 site #4	GCCACCTTTGCCCTTTTAGT	
	TCCCCATTCTCAGAGCTGTT	
FOXA1 site #5	CTGGTGAGATGGGGAACACT	
	AGGCTGCTGGTGCATTAGAT	
FOXA1 site #6	ACCCACCTCCTCACTGAACA	
	GGGTGGGAGAGGACAACATA	
FOXA1 site #7	TAGGAAGGAGGAGTGGCAAA	
	TGTGCTGTTTAGGTTGGCTTT	
FOXA1 site #8	TTTGATTGCCTTGTGGAACA	
	CCTCACCTTGTCTGTGAATCG	
Negative control	TCCAGGCCAGGTCTTCATAG	
	CTCTTCTGGTGGGTGTGGAT	

Primers used in Fig.4B, 4C and 5A

Hus1 promoter	gggggaacctttgtcctg	
	acaaaagtccctccctgagc	
FOXA1 site #1	CAAGCCTTTCCTTTGTTCCA	
	CTGCTCTTCATGCAGCCTAC	
FOXA1 site #2	CAGAGATAGGCTGCTACCAAGTC	
	TTTTGTAGGCCTCCATAGTCAAA	
FOXA1 site #3	TGAGGGTAATGTGGCAAACA	
	TCTCCAGAGCTTTCCGACTG	
FOXA1 site #4	TGAGGTGCTCAGTGGAGATG	
	CTCCAGAGTGAGCGTTGACA	
FOXA1 site #5	CCCAAACCCACAGTTAGGAC	
	AAGCCTTCGAGGAGGAGAAG	
FOXA1 site #6	CAGTCCCATCGATCACTTACA	
	TTCAAAGGCTTGCTTGACCT	
FOXA1 site #7	GACATGTCAAGGTGGCCTCT	
	AAGGCTCTGAGGGGATAAGG	
FOXA1 site #8	TCCTCAATTCATTGGGGTTG	
	TGTCAGCAGTGGGATGTGTT	
FOXA1 site #9	GTGAAGGCTCCTGCATCATC	
	TGGCCCTCTTCTCTGAGTTG	
FOXA1 site #10	CACTTTTTCTGGGGCATGAG	
	AGACACGGGCACGTAAATTC	
FOXA1 site #11	GCAGCCACTGAAGAGACAAA	
	TGGTTGTGGGCTTGTGTTTA	
Negative control	ACCTCAGCAGAAGGAAGCAA	
	GCTGGGATCTCTATGCCTCA	

Primers used in Fig.4D and 5A-B

<u>Amplification primers</u>

FOXA1 site #1	TCTTCCCTTTATTCTTTCTTCCA	Biotinylated
	GGGTGAGTTTAGGATTGGAAAGAT	
FOXA1 site #2 amplicon 1	TGATTTGTGTTGGTGGTTTTTT	Biotinylated
	TCCCAAATCCCAAATAAACTCTA	

FOXA1 site #2 amplicon 2	TTGGGATTTGGGAAGAATTG	Biotinylated
	TTCTCCTATCATAATAACCCCTTA	
FOXA1 site #3	AAATTTTCAAACCCTTAAATCTCA	Biotinylated
	TTGGAGATAGTGTTTGGTTATGTA	
FOXA1 site #5 amplicon 1	CCATTTTCTTCTAAAACAAACACA	Biotinylated
	TGTTGTTGTAATGTTGGGGTAGAG	
FOXA1 site #5 amplicon 2	ATTTCTCTCCCTTCCCCTAACAAC	Biotinylated
	GGTTTGGGTTATGTTTTTTTATGG	
FOXA1 site #6	TTTTTTTTTTTTTACCCCTTTCAA	Biotinylated
	GGTTTGTTTGATTTTGGGAATTAG	
FOXA1 site #7 amplicon 1	TGTTGTTTTTTGGGGGGTAGGT	Biotinylated
	ACCTCCACCCAAATCTTTACCA	
FOXA1 site #7 amplicon 2	TTGGTTGTGTTTGGATTTGAGATT	Biotinylated
	CCCCCAAAAAACAACACTTAACT	
control	CCCCTTCTTACCCCAAAAATCC	Biotinylated
	GTTGGGGAGGTGGAAAGAAA	

<u>sequencing primers</u>

FOXA1 site #1	AAGGAAAGGTTTGTTTGTA
FOXA1 site #2	CCCACAAAATAAACAATTA
	TTTATTCTTTAAATCAACAT
FOXA1 site #3	GGAATTTATGTTGGGTTTT
FOXA1 site #5	TATTTAGAGTATAAAAATTG
	AAAGATTGTTTTGTATAAGG
	GGGGATTTTGTAATGTAGTA
FOXA1 site #6	TGAAATTATTTATTAGTTTG
	ATTTTGGTTTTAGAAAT
FOXA1 site #7	ATTTAATAAAAACAAAACAC
	TCCTATAAAATATAACCAAA
control	TTTATTAGGTGTTGAGAGAT

Primers used in Fig.4E

Tle1	GGGATTCAAGTTGGAAGTGG
	CCAGAGACTCCGGGATAGTG
Smc2	TAGGCATCTCCAACCTGTCC
	TTTGGTAATCCCAGCCTGTC
Megf9	CGAAGCCCCTACTTCTCCTC
	ATCACACTGCCCTGTGGTCT
Hus1	CTGGTATCCGCCATGAAGTT
	GGCAAGCTTGGCTATCATGT
Etaa1	CGCCAGTACAAATCGTGAAA
	TGCACTGGAAATCTGCTTTTT
Efna5	GCTGCTCTTTCTGGTGCTCT
	GTGGTAGTCACCCCTCTGGA
Lhcgr	TCACAAGCTTTCAGGGGACT
	GGTTGTCAAAGGCATTAGCTTC
Sertad2	ctccgatgcgttagctcct
	agcccatcttcatgctcatc
A530088H08Rik	GAAACTCATTGCCAGCTTCC
	CATTGTTGTGGCTGCTCAAG
A530088H08Rik	ATTGCCAGCTTCCTCCCTAC
	CATTGTTGTGGCTGCTCAAG

Ltbp1	GGGGAATACCACCACTCTCA
	TTGTCCCTTGAACTGCACTG
Pkdcc	TGCTCAAAGAGATGGTGCTG
	AGCTGGATCATCTCCACAGG
Rplp0	CAGCTCTGGAGAAACTGCTG
	GTGTACTCAGTCTCCACAGA

Primers used in Fig.6

Cloning primers

MCF7-specific #1	ATTAAAAGGAATTCCTGCAGCAAGCTTGCAAAGAAGGATTTT
	GCTCTTCTCCACTAGTGCAGTGCTTCATCTCTGGTG
MCF7-specific #2	ATTAAAAGGAATTCCTGCAGTGAAAAAGCTTGCAAAGCAC
	GCTCTTCTCCACTAGTGCCCAAAATAGGTGACCAGA
MCF7-specific #4	ATTAAAAGGAATTCCTGCAGAGCTGGGACCATGCAATTAG
	GCTCTTCTCCACTAGTGCTGAGCCACTCTCCAGAAC
MCF7-specific #6	ATTAAAAGGAATTCCTGCAGAAAGCAATTGTCCCACATCC
	GCTCTTCTCCACTAGTAGCGGACAGCCTACCTGTAA
LNCaP-specific #2	ATTAAAAGGAATTCCTGCAGAGGCAAGCCCAAGTGACTAA
	GCTCTTCTCCACTAGTTTCCCCAAAGGAACTGTTTG
LNCaP-specific #4	ATTAAAAGGAATTCCTGCAGAAGCACTTGAAAAGAATTACATGG
	GCTCTTCTCCACTAGTGTCAAAAGCCCCAGTGTTG
LNCaP-specific #9	ATTAAAAGGAATTCCTGCAGCTGTCATGTGCAGCCTTTTT
	GCTCTTCTCCACTAGTCTGGGCAATGGAATGAGACT
LNCaP-specific #10	ATTAAAAGGAATTCCTGCAGAGGGTGTTCATGGTGTGGAT
	GCTCTTCTCCACTAGTTTTGGAGGGAAAAACAGTGG

Primers used in Fig.S5

RSP28	CGATCCATCATCCGCAATG
	AGCCAAGCTCAGCGCAAC
FOXA1	GAAGATGGAAGGGCATGAAA
	GCCTGAGTTCATGTTGCTGA
FOXA2	CCGACTGGAGCAGCTACTATG
	TACGTGTTCATGCCGTTCAT
FOXA3	CTGGCCGAGTGGAGCTACTA
	AGGGGGATAGGGAGAGCTTA

Primers used in Fig.S6

SIK3	CGCCCGTATCGGCTACTAC
	TCTTCATCCAGCTGGGTCTT
KITLG	CTTGTGGAGTGCGTGAAAGA
	CAAGCCACAATTACACTTCTTGA
BARX2	TTTCCCTCTACTCCGTGTGC
	GACCAGGTGGGAGATGACAG
NAV2	GGAATCGGTTTCTGAGTCCA
	TGATTGGCCCAGTCTGTGTA
CHKA	GGACGAGTTCCACATCAGTG
	CTGCAAAATCGCTCCATACA
CADM1	GGCTTCTGCTGTTGCTCTTC
	CCTCTCCCTCGATCACTGTC
AMOTL1	CTCATGTGGAGGGCAAAGTT
	GCCTCCCAGAATAGAGCTGA
ARNTL	GCTGGATCTGGGGTGTAAGA

	ACCAAGAGAGCTGGAAAGCA

Primers used in Fig.S7

Rsp28	GGTGACGTGCTCACCCTATT
	TTCCGTGGGCTAAGTAGTGG
Foxa1	CATGAGAGCAACGACTGGAA
	TGTTGCTGACAGGGACAGAG
Foxa2	CATCCGACTGGAGCAGCTA
	TGTGTTCATGCCATTCATCC
Foxa3	ATGCTGGGCTCAGTGAAGAT
	GGAGAGCTGAGTGGGTTCAA

Primers used in Fig.S9

FOXA1 binding site 1 CpG 2	CCAGGCCTTTTAGTGTTTGC
	GCTGAAACAATGGAACAAAGG
FOXA1 binding site 6 CpG 1	CAGTCCCATCGATCACTTACA
	TTCAAAGGCTTGCTTGACCT
Negative control	TGAGGGTAATGTGGCAAACA
	TCTCCAGAGCTTTCCGACTG

Primers used in Fig.S11

Nes	CTGCAGGCCACTGAAAAGTT
	TTCCAGGATCTGAGCGATCT
Tubb3	CGGCAACTATGTAGGGGACT
	CATGGTTCCAGGTTCCAAGT