

Table A.2. Information of therapeutic targets of breast cancer.

Source	Breast cancer targets
OMIM	BRCA1, TFF1, RHOBTB2, CCAR2, BPIFA4P, VWA5A, BCAR1, BCAS1, SNCG, ABCG2, AKAP13, BCAR3, NCOA6, PBOV1, BLID, AKIP1, AGR3, FAM84B, ARID4B, BCAR4, ANKRD30A, MUC1, NCOA3, BRMS1, ANKRD30B, ERGIC3, LINC01488, BRMS1L, RNF115, BRCA2, ESR1, PALB2, CHEK2, TP53, ATM, PTEN, CDH1, ERBB2, PIK3CA, RAD51, RAD51C, CYP19A1, FGFR2, PHB, TOX3, AR, CASP8, BRIP1, MTA1, PTGS2, CYP4Z1, LMO4, HIF1A, TNFSF11, CCND1, XBP1, LCN2, TRIM62, SRARP, MED1, MIR126, CXCR4, AKT1, CDKN1B, CCNE1, PHGDH, FANCA, PGR, RAD51D, FANCM, PMS2, XRCC2, ING1, CDH3, RB1CC1, SAFB, TNFRSF11A, CLDN1, NOP16, NBN, ARID4A, CEBPB, XRCC3, MSH6, CXCL12, MAP3K1, MIR31HG, ARFGEF3, LMTK3, CBFEB, MIR221, MIR222, STARD3, LASP1, PPM1D, FBXO31, PBK, MIR200A, RUNX1, GRN, MYC, FGF8, SFN, BARD1, FOXA1, RNF208, CTNNB1, MMP1, MMP2, CYP27A1, APOBEC3B, SASH1, NFATC4, ZNF217, TRIM37, WWOX, BBC3, PYHIN1, AKT3, APC, ATAD2, MIR200C, GAL, GPT, CSF2, HOXA5, IGFBP5, ALOX12, LSP1, NFKB1, PRLR, F2R, TGFB1, TGFB3, CDH13, TSG101, ESR2, LIG4, NR1H3, ST6GALNAC5, SUSD3, GPATCH2, ZNF703, LINC02747, CD44, CDK1, CYP2D6, BEX2, SCGB3A1, FRK, ST14, PYCARD, ADGRL2, KMT5A, LSM1, BCAS3, BCAS4, TCIM, SDHD, TRIM24, BAG4, KDM5B, KLK13, EBAG9, KEAP1, GAB2, PSMC3IP, SLC39A6, CYP17A1, NECTIN4, PDLIM2, CCAR1, PDS5A
TTD	ABL, ADAM10, ADAM17, ADRB2, AhR pathway, AKT1, AKT3, AMPK, ANGPT1, ANGPT2, AR, AR mRNA, AURKA, AXL, BCL-2, BS, CA, CA-I, CA-II, CA-IV, CA-IX, Candi TMP1, CA-VI, CA-XII, CA-XIV, CC, CD3E, CD3G, CD66d, CD66e, CDK, CDK1, CDK2, CDK4, CDK6, CHK1, CHRM, CHRNA7, CO3, CRF, CS1, CSF-1R, CSF3, CXCR4, CYP11B1, CYP19A1, D2R, DDX5, eEF-2K, EGFR, EPCAM, Erbb-3, ESR, ESR2, FGFR, FGFR1, FGFR2, FGFR3, FXR, GIIA sPLA2, GLS, GNRH1, GR, GRPR, GS, HDAC, hDNA, hDNA min, HER2, HER2 mRNA, hIAP, HIV RT, HR, HSP90A, HSP90B, IGF1R, IGF2, IL-12, IL12B, IMPDH1, INSR, KDR, MAP3K, MC4R, MDM2, MELK, MELK, MET, MKNK1, MKNK2, MSLN, mTOR, mTORC1, MTORC2, MUC1, NgcGM3, NKA, NQO2, NR3C1, OPR, OX40, PARP, PCC, PD-1, pDDX5, PDGFR, PDGFRA, PD-L1, PG, PGR, PIK3CA, PIK3CB, PIK3CD, PIK3CG, PK, PLAU, PTP1B, RAR, RPS6KB2, RXR, RXRG, S100A4, S17AH, SLC39A6, SRC, STMN1 mRNA, STS, TAG-72, TEK, TERT, TERT mRNA, TNKS, TOP1, TOP2, TOP2B, TPBG, TUB, TUBB, VEGFA
PHARMGKB	NQO1, CDA, FBXO21, ERBB2, ABCC2, ABCC4, ERCC1, EDN1, SLC28A1, TUBB2A, PHC1, ANGPT1, SLC28A3, CYP2C9, FGD4, EPHA5, SULT1A2, ABCG2, GSTA1, RAB27A, EPHA8, RRM2B, CLDN11, CLDN11, WWOX, ABCG1, PRKG1, AKR7A2, CCND1, TP53, CD96, SULT1A1, RBX1, MMP9, HLA-DQA1, ZNF423, E2F7, ABCB1, IRS1, TP53AIP1, VPS13D, GSTM1, IGF1, CYP3A, ABCC5, DLGAP1, TNFSF11, MAP4K4, HMMR, CYP19A1, TNFRSF11B, IGF1R, VDR, TOP2A, CYP3A4, CYP3A4, DLG2, DHFR, SPRY2, HLA-B, RBFOX1, DNAH12, CYP2B6, ADCY2, CYP2D6, CYP2D6, MCPH1, ADGRG7, RRAS2, LRMDA, MTHFR, MTHFR, EGLN3, CSMD1, HLA-DRB1, CYP1A1, TUBB1, DAPK1, BRCA1, BRCA1, RARG, MDM4, EPHA6, SPIDR, PIK3R1, CES2, NCOA1, BARD1, SLC37A1, ALDH1A1, UGT2B15, CYP2C19, NOS1, RAC2, SSU72, NSUN3, MISP, DGKI, TNFSF13B, DOCK4, FCGR2A, DCK, PERP, MAN1A1, FCGR3A, CYP2C8, UGT1A4, TENM4, DOP1B, DPYD, ANK3, AKR1C4, HLA-C, CYP1B1, LMNTD1, FLT1, RPTOR, UGT1A1, CYP4X1, CMPK1, CCDC70, CYP3A5, ESR2, CYP4A11, PIGB, TMEM131L, SLCO1B1, SIRPA, IGFBP3, ATM, ALDH3A1, MIR2054, UGT1A6, CYP2A6, PDE4B, WBP2NL, AKR1C3, FAT1, EPM2AIP1, UGT2B17, PPCDC, ZMIZ1, ERCC2, SLC22A16, CCNK, FGFR2, INSR, FZD3, SLCO1B3, FLT3, NQO2, NCF4, IL17F, TCL1A, CCDC77, PIK3R2, CBR1, MTOR, PPP2R5D, ZNF613, ANGPT2, FGFR4, HLA-A, CYP1A2, XRCC1, ABCC1, FOXO1, RRM1, TYMS, RICTOR, FGF2, TOP2B, ZNF215, COMT, ERBB3, ECT2L, EPAS1, NR1I3, VEGFA, GSTP1, GSTP1, SOD2, NCOA7, NOS3, UGT2B7, CBR3, TNFRSF11A, SLC29A1, RNF8, GNL3, ESR1
Drugbank	TUBB1, BCL2, MAP2, MAP4, MAPT, NR1I2, ESR1, ESR2, EBP, PRKC, AR, KCNH2, ESRRG, SHBG, MAPK8, CD274, TOP2A, CYP19A1, TGFB1, TUBB3, ERBB2, PARP1, PARP2, LHCGR, GNRHR, CDK4, CDK6, PDCD1, TACSTD2, TOP1, FUBP1, TYMS, FDPS, GGPS1, DHFR, ATIC, EGFR, CASP3, CASP9, TOP2B, NOLC1, CHRNA4, GPER1, MT-ATP6, BECN1, RRM1, CMPK1, PARP3, AKR1C3, TUBB, FCGR1A, SERPINB9, TFF1, NR3C1, HSD11B2, NR3C2, MTOR, TUBA1A, TUBD1, TUBG1, TUBE1, ERBB3, PGR, GNRHR2, CCL2