Supplementary Material

Table S1. Functional role of oncogenic lncRNAs in cancer.

lncRNA	Cancer	Oncogenic Response	References
ANRIL	CC, CRC, GBC, GC, HCC, NPC, NSCLC, OC, THCA	Proliferation, Metastasis	[1,2]
BANCR	BC, CRC, ESCA, GC, HCC, LICA, MEL, NSCLC, OSCC, RB	Proliferation, Metastasis, EMT	[3]
BCAR4	BC, BLCA, CC, CSA, CRC, GC, GM, LICA, LC, PC	Proliferation, Metastasis, Cell-survival	[4]
BGL3	LMA	Chromosome instability	[5]
BLACAT1	OC	Proliferation, Therapy resistance	[6]
CCAT1	AML, BC, CC, CCA, CRC, ESCA, GBC, GC, GO, HCC, LC, LSCC, MEL, MM, NPC, NSCLC, OC, OS, OSCC, PACA, PC, RB, RCC, TC	Proliferation, Metastasis, EMT, Therapy-resistance, Cell-survival	[7]
CCAT1-L	CRC, GC	Proliferation, Metastasis, EMT	[8,9]
CCAT2	BC, BLCA, CC, CCA, CRC, EC, ESCA, GC, GM, HCC, LC, NSCLC, OC, OS, OSCC, PA, PC, RCC	Proliferation, Metastasis, EMT Chromosome instability	[10]
CHOP	LICA	Immune surveillance	[11]
COMET	CRC, NSCLC, RCC, THCA	Proliferation, Metastasis, Therapy-resistance, Cell-survival	[12-15]
CUPID1/2	BC	Chromosome instability	[16]
DANCR	HCC, OC	Proliferation, Cell survival, Metastasis, Stemness	[17,18]
DDSR1	NSCLC	Therapy-resistance	[19]
DICER-AS1	OS	Therapy-resistance	[20]
DLEU1	GM	Therapy-resistance	[21]
DLEU2	CLL	Immune surveillance	[22]
FARSA-AS1	CRC	Cell-survival, Proliferation, EMT, Metastasis, Stemness	[23]
FAS-AS1	LYMA	Immune surveillance	[24]
FEZF1-AS1	CRC	Metabolic reprogramming	[25]
GLCC1	CRC	Metabolic reprogramming	[26]
Ginir	MN	Chromosome instability	[27]
GUARDIN	BC, CRC	Chromosome instability, Proliferation, Cell-survival, Therapy-resistance	[28,29]
H19	BC, BLCA, CCA, CRC, EC, ESCA, GBC, GC, HCC, LC, LMA, LSCC, LYMA, MEL, MM, NPC, NSCLC, OC, OS, PACA, RCC, TC	Cell-survival, Proliferation, EMT, Metastasis, Metabolism, Stemness	[30]
HOTAIR	BC, BLCA, CC, CRC, EC, ESCA, GC, GO, LC, LICA, NSCLC, OC, OS, PC, PACA,	Cell-survival, Proliferation, EMT, Metastasis, Therapy-resistance.	[31]
HOTTIP	AML, BC, CRC, ESCA, GC, GM, HCC, HNSCC, LC, NPC, NSCLC, OC, OS, OSCC, PACA, PC, RCC, THCA	Cell survival, Proliferation, EMT, Metastasis, Immune surveillance, Metabolic-reprogramming, Therapy-resistance.	[32]
HOXA11-AS	BC, CC, CRC, ESCC, GM, HCC, LSCC, NSCLC, OC, OS, RCC, UM	Cell survival, Proliferation, EMT, Metastasis, Angiogenesis, Therapy-resistance	[33]
HULC	CRC, GC, HCC, OS, PACA	Proliferation, EMT, Metastasis, Angiogenesis, Metabolic-reprogramming	[34]
JADE	BC	Chromosome instability	[35]
LAMP5-AS1	MLL	Stemness	[36]
LINC00152	ESCA, GBC	EMT, Metastasis, Therapy-resistance	[37,38]
LINC00337	CRC	Cell survival, Metastasis	[39]

LINC00460	BLCA, CRC, ESCA, GC, LC, NPC, NSCLC, OC	Cell survival, Proliferation, EMT, Metastasis	[40]
LINC00665	LC, NSCLC	Metastasis, Therapy-resistance	[41,42]
LINC01410	GC	Cell survival, Metastasis	[43]
Linc-BM742401	CLL	Immune surveillance	[44]
Linc-NMR	BC, HCC, LICA, LC	Metabolic reprogramming	[45]
Linc-ROR	BC, PACA, ESCC	Cell survival, Proliferation, EMT, Metastasis, Stemness	[46-48]
LINK-A	BC	Metabolic reprogramming	[49]
LINP1	CC	Chromosomal instability	[50]
Lnc-ARSR	RCC	Stemness, Metabolic reprogramming	[51]
Lnc-ATB	BC, BLCA, CC, CCA, CRC, GC, GM, HCC, LC, OS, PACA, PC, RCC, THCA	Cell survival, Proliferation, EMT, Metastasis	[52]
Lnc-Cox2	HCC	Immune surveillance	[53]
Lnc-EGFR	HCC	Immune surveillance	[54]
Lnc-GATA6	IC	Stemness	[55]
Lnc-Hh	BC	Stemness	[56]
Lnc-SOX4	LICA	Stemness	[57]
Lnc-TIM3	HCC	Immune surveillance	[58]
LNMAT1	BLCA	Immune surveillance	[59]
MALAT1	BC, CRC, EC, GBC, GC, GM, HCC, NPC, NSCLC, OC, PC, TSCC, MM, PACA, OS,	Cell survival, Proliferation, EMT, Metastasis, Immune surveillance, Metabolic-reprogramming, Therapy-resistance.	[60]
MEG3	BC, CC, CRC, GC, GM, LICA, OC, OS, NSCLC	Cell survival, Proliferation, EMT, Metastasis	[61]
MIAT	CLL	Immune surveillance	[62]
MINCR	CRC, GBC, GM, HCC, LICA, NPC, NSCLC, OSCC, LYMA	Proliferation, EMT, Metastasis	[63-66]
MVIH	HCC	Cell survival, Metastasis	[67]
NBAT1	BC, BLCA, GC, GBM, LC, NB, NSCLC, OC, OS, RCC	Proliferation, EMT, Metastasis	[68-70]
NEAT1	AML, BC, BLCA, CC, CRC, EC, ESCA, GC, GM, HCC, HMA, LMA, LSCC, LYMA, MM, NB, NPC, NSCLC, OC, OS, OSCC, PC, RB, RCC, THCA	Cell survival, Proliferation, EMT, Metastasis, Therapy-resistance	[71]
NKILA	BC, LC	Immune surveillance	[72]
NORAD	BC, BLCA, CC, CRC, EC, ESCA, GC, GM, HCC, LC, MM, NB, NSCLC, OC, OS, OSCC, PC, PACA, RCC, THCA	Cell survival, Proliferation, EMT, Metastasis, Therapy-resistance	[10]
OIP5-AS1	OS	Therapy-resistance	[73]
Olfr29-ps-1	MN	Immune surveillance	[74]
OR3A4	HCC	Cell survival, Metastasis	[75]
PANDA	OS	Chromosomal instability	[76]
PCAT1	AML, BLCA, CC, CRC, EC, ESCA, GC, GM, HCC, HNSCC, LC, LSCC, MM, NSCLC, OC, PACA, PC, OS	Cell survival, Proliferation, EMT, Metastasis, Therapy-resistance	[77]
PCAT19	GM, LSCC, NSCLC, PC	Cell survival, Proliferation, EMT, Metastasis	[78-81]
PCGEM1	HCC	Therapy-resistance, Metabolic reprogramming	[82]
POU3F3	GM	Cell survival, Metastasis	[83]
PRLH1	HCC	Chromosomal instability	[84]
PVT1	BC, BLCA, CC, CRC, EC, ESCA, GC, GM, HCC, HNSCC, LC, MEL, NPC, NSCLC, OS, OC, PACA, PC, RCC, THCA	Cell survival, Proliferation, Metastasis, Angiogenesis, Therapy-resistance, Stemness,	[85,86]
REG1CP	CRC	Cell Proliferation	[87]
RUNXOR	LC	Immune surveillance	[88]

SAMMSON	GBM, GC, HCC, LICA, MEL, OSCC, THCA	Cell Proliferation, EMT, Metastasis	[89-94]
SCAMP1	OC	Cell survival, Metastasis	[95]
SchLAP1	BC, BLCA, CC, GBM, NSCLC, PC	Cell Proliferation, Metastasis, Immune surveillance	[96-99]
SNHG1	BC	Therapy-resistance, Immune surveillance	[100,101]
SNHG7	BC	Therapy-resistance, Stemness	[102]
SNHG14	HCC	Cell survival, Metastasis	[103]
SNHG20	ESCC	Cell survival, Metastasis, Immune surveillance	[104]
SNHG3	AML, BC, BLCA, CRC, GC, GM, HCC, LC, LSCC, OC, OS, OSCC, PC, RCC, THCA	Cell survival, Proliferation, EMT, Metastasis, Therapy resistance	[105]
SOX2-OT	NSCLC	Therapy-resistance	[106]
STEAP3-AS1	CRC, HCC, GBM, TSCC	Cell proliferation, Metastasis	[107-110]
TRPM2-AS	NSCLC	Therapy-resistance	[111]
TTN-AS1	HCC	Therapy-resistance	[112]
TUG1	AML, BC, BLCA, CC, CCA, ESCA, GC, GM, HCC, LSCC, MM, NSCLC, OC, OS, OSCC, PACA, PC, RCC	Cell survival, Proliferation, EMT, Metastasis, Angiogenesis, Therapy-resistance	[113]
UCA1	AML, BC, BLCA, CCA, CRC, GC, GM, HCC, HMA, HNSCC, MEL, MM, OS, RCC, THCA, TSCC	Cell survival, Proliferation, EMT, Metastasis, Metabolic-reprogramming, Therapy-resistance.	[114]
UFC1	BC, CC, CRC, GC, HCC, NSCLC, PACA	Cell survival, Proliferation, EMT, Metastasis,	[115-120]
VELUCT	LC	Cell survival, Proliferation	[121]

Abbreviations: AML, Acute myeloid leukemia; BC, Breast cancer; BLCA, Bladder cancer; CC, Cervical cancer; CCA, Cholangiocarcinoma, CRC, Colorectal cancer; CSA: Chondrosarcoma; EC: Endometrial cancer; EMT, Epithelial-mesenchymal transition; ESCA: Esophageal carcinoma; ESCC, Esophageal squamous cell carcinoma; GC: Gastric cancer; GBC: Gall bladder cancer; GBM: Glioblastoma; GM: Glioma; HCC: Hepatocellular carcinoma; HMA, Hemangioma; HNSCC: Head and neck squamous cell carcinoma; IC: Intestinal cancers; LC: Lung cancers; LICA: Liver cancer; LMA, Leukemia; LSCC: Laryngeal squamous cell carcinoma; LYMA, Lymphoma; MM: Multiple myeloma; MN: Melanoma; NSCLC: Non-small cell lung carcinoma; NPC: Nasopharyngeal carcinoma; NB: Neuroblastoma; OC: Ovarian cancer; OSCC: Oral squamous cell carcinoma; OS: Osteosarcoma; PA, Pituitary adenoma; PACA: Pancreatic cancer; PC: Prostate cancers; RB: retinoblastoma; RCC: Renal cell carcinoma; THCA, Thyroid carcinoma; TC: Testicular cancer; TSCC: Tongue squamous cell carcinoma; UM-Uveal melanoma.

Table S2. Functional role of tumor-suppressor lncRNAs in cancer.

LncRNA	Cancer	Targeted Response	References
AB074169	THCA	Proliferation	[122]
AK126698	NSCLC	Proliferation, Cell survival, Metastasis, Therapy resistance	[123,124]
BACE1-AS	OC	Proliferation, Metastasis	[125]
BANCR	BLCA, CRC, LC, NSCLC, THCA	Proliferation, Cell survival, Metastasis	[3]
CASC2c	GBM	Immune surveillance	[126]
DDSR1	NSCLC	Therapy-resistance	[19]
DILC	LICA	Stemness	[127]
DINO	CC	Cell-survival	[128]
DIRC3	MEL	Proliferation, Metastasis	[129]
DLEU2L	PACA	Therapy-resistance	[130]
DRAIC	CRC, GC, GM, PC	Proliferation, Metastasis	[131-134]
FER1L4	OC	Therapy-resistance	[135]
GAS5	BC, BLCA, CC, CRC, EC, ESCA, GC, GM, HCC, MEL, NSCLC, OC, OS, PC, RCC, THCA	Proliferation, Cell survival, Metastasis, Therapy resistance	[136]
H19	CRC, HCC, OS	Proliferation	[137-139]

Hand-AS1	BC, CC, CML, CRC, EC, ESCA, GC, HCC, MEL, NB, NSCLC, OC, OS, PC,	Proliferation, Cell survival, Metastasis, Therapy resistance	[140]
HITT	CC, CRC, RCC	Angiogenesis	[141]
HOXB-AS3	CRC	Metabolic reprogramming	[142]
LBCS	BLCA	Stemness, Therapy-resistance	[143]
LINC00261	BC, CCA, CRC, GC, HCC, LC, LSCC, PACA, PC	Proliferation, Cell survival, EMT, Metastasis, Therapy-resistance	[144]
LINC00908	BC, PC	Proliferation, Cell survival, Metastasis, Angiogenesis	[145,146]
LINC00968	BC	Therapy resistance	[147]
lincRNA-p21	CLL, CRC, GC, HCC, HNSCC, LYMA, MEL, NSCLC, PC	Proliferation, Cell survival, EMT, Metastasis, Angiogenesis	[148]
MEG3	BC, BLCA, CC, CRC, EC, ESCA, GC, GBC, GM, LICA, LMA, LYMA, MM, NSCLC, NPC, OS, OSCC, PACA, PC, RB, THCA, TSCC,	Proliferation, Cell survival, Metastasis	[61]
MALAT1	BC, CC, CRC	Proliferation, Metastasis	[149,150]
NBAT1	BC, BLCA, GC, GBM, LC, NB, NSCLC, OC, OS, RCC	Proliferation, EMT, Metastasis	[68-70]
NDRG2	CRC	Metabolic reprogramming	[151]
NEAT1	CRC, PACA	Proliferation	[152-154]
PTENP1	BC, BLCA, CRC, EC, GC, GM, HCC, HNSCC, PC, RCC	Proliferation, Cell survival, Metastasis	[155]
PVT1	LC	Proliferation	[156]
SATB2-AS1	CRC	Proliferation, Metastasis, Immune surveillance	[157,158]
TERRA	HNSCC	Cell survival	[159]

Abbreviations: BC, Breast cancers; BLCA, Bladder cancers; CC, Cervical cancers; CCA, Cholangiocarcinoma, CLL, Chronic lymphocytic leukemia; CRC, Colorectal cancers; EC, Endometrial cancers; EMT, Epithelial-mesenchymal transition; ESCA, Esophageal cancers; GC, Gastric cancers; GBC, Gall bladder cancers; GBM: Glioblastoma Multiforme; GM: Glioma; HCC: Hepatocellular carcinoma; HNSCC: Head and neck squamous cell carcinoma; LMA, leukemia, LICA: Liver cancers; LC: Lung cancers; LSCC: Laryngeal squamous cell carcinoma; LYMA, Lymphoma; MM: Multiple myeloma; NSCLC: Non-small cell lung carcinoma; NPC: Nasopharyngeal carcinoma; NB: Neuroblastoma; OSCC: Oral squamous cell carcinoma; OS: Osteosarcoma; PC: Prostate cancers; PACA: Pancreatic cancers; RB: retinoblastoma; RCC: Renal cell carcinoma; THCA: Thyroid cancers; TSCC: Tongue squamous cell carcinoma.

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