

Table SVIII. Summarization of the reported roles of PSAT1-associated survival genes in lung tumorigenesis.

Genes	Relevant role in lung tumorigenesis	(Refs.)
PSAT1	Shorter overall survival in NSCLC	(1,2)
	Cell proliferation, cell cycle progression and tumor growth <i>in vivo</i>	(1)
	Shedden_Lung_Cancer_Poor_Survival_A6	(3)
TYMS	Associated with advanced stage, lymph node metastasis and vasculature invasion in lung adenocarcinoma	(4)
	Shedden_Lung_Cancer_Poor_Survival_A6	(3)
SFN	Increased expression in NSCLC by hypomethylation of promoter and further reduced methylation with progression	(5,6)
	Early-stage lung adenocarcinoma marker for progression	(7)
	Role in oncoprotein stabilization	(8)
SLC39A4	Associated with increased tumor size, regional lymph node metastasis and poor patient outcome	(9)
	EMT	
UHRF1	Poor overall survival in lung adenocarcinoma	(10)
	Role in regulation of epigenetic modulation during DNA duplication in S-phase	
	Hypomethylation of UHRF1-related genes	
MMP15	Associated with lymph node metastasis, tumor stage and intra-tumoral microvessel density	(11)
	EMT via degrading adherens and tight junction proteins	(12)
NETO2	Shorter overall survival in lung adenocarcinoma	(13)
	Shedden_Lung_Cancer_Poor_Survival_A6	(3)
ANKRD22	Relapse and shorter overall survival in NSCLC	(14)
	Cell proliferation via increasing the expression of E2F1	
MCM2	Shorter overall survival and progression-free survival in lung adenocarcinoma	(15)
	Cell proliferation, cell cycle, and migration	(16)
PAICS	Disease progression and poor prognosis in lung adenocarcinoma	(17)
	<i>De novo</i> purine biosynthesis, cell proliferation, invasion and modulation of pyruvate kinase activity	
	Shedden_Lung_Cancer_Poor_Survival_A6	(3)
CDCA7	Shorter overall survival	
	Involved in a variety of oncogenic processes	(18)
shPSAT1-upregulated Genes		
BTG2	Hypermethylation of promoter is associated with shorter overall survival	(19)
	Inhibition of cell proliferation and invasion and PI3K/AKT signaling pathway	
HBEGF	Highly expressed in subgroup of lung cancer and associated with advanced tumor growth	(20)
	Patients with high serum level tend to longer progression-free and overall survival	(21)
JAG1	Better overall survival rate	(22)
CFD	NA	
SCEL	Shedden_Lung_Cancer_Good_Survival_A4	(3)
GPRC5A	Low expression is associated with worse prognosis and advanced TNM stage	(23)
	Negative modulator of EGFR signaling in NSCLC cells and inhibited by EGFR-dependent phosphorylation	(24,25)
FILIP1L	Shedden_Lung_Cancer_Good_Survival_A4	(3)
	Down in lung cancer by DNA methylation	(26)
	Inhibition of cell migration	
	Reduced nuclear β -catenin expression	(27)

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