

Figure S1. Procedure for establishment of patient-derived xenografts. (A) Fresh tumor tissues were divided into small pieces and implanted into NSG mice in the dorsal subcutaneous area of the upper part of the back by using the transplant needle. (B) Tumor tissues for transplantation were obtained from patients with pancreatic cancer. Fresh tumor tissues were implanted into NSG mice. After the engrafted mass expanded well, the xenograft tumor was re-transplanted for expansion in another NSG mouse using the same procedure. We repeated this procedure and passaged the PDXs. The tumor volume reached  $\sim 1000 \text{ mm}^3$ , the mouse was sacrificed, and the tumor was isolated and transplanted into the next mouse. PDXs, patient-derived xenografts.

A



B

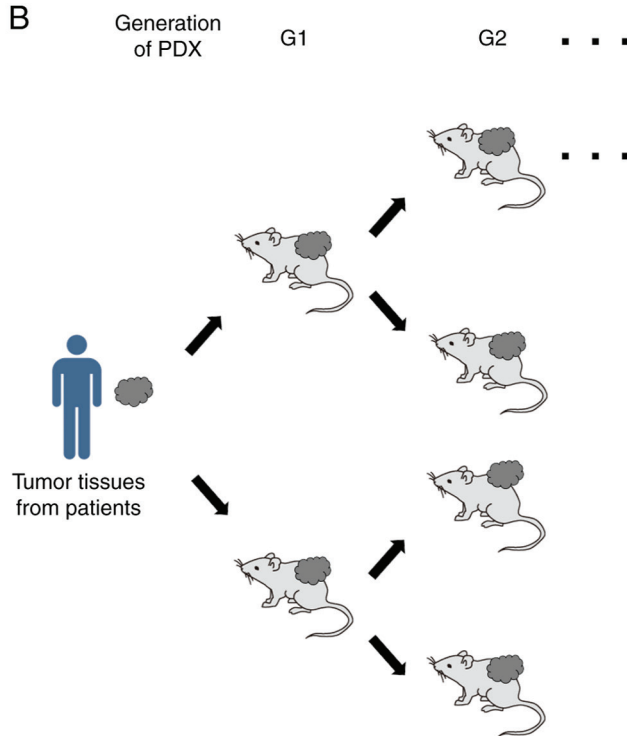


Figure S2. Quantification of pIgR-stained area in 77 pancreatic cancer tissues. The percentage of pIgR-stained area was measured by the Hybrid Cell Count software and analyzed based on the survival time and the expression of pIgR determined by two pathologists. (A) Box-plot diagram revealing the percentage of pIgR-stained area for 77 pancreatic cancer tissues, which were divided into two groups: Low pIgR expression (n=47; median 1%, range 0-7%) and high pIgR expression (n=30; median 23%, range 15-61%). (B) Scatter plot revealing the relationship between the percentage of pIgR-stained area and the survival time.

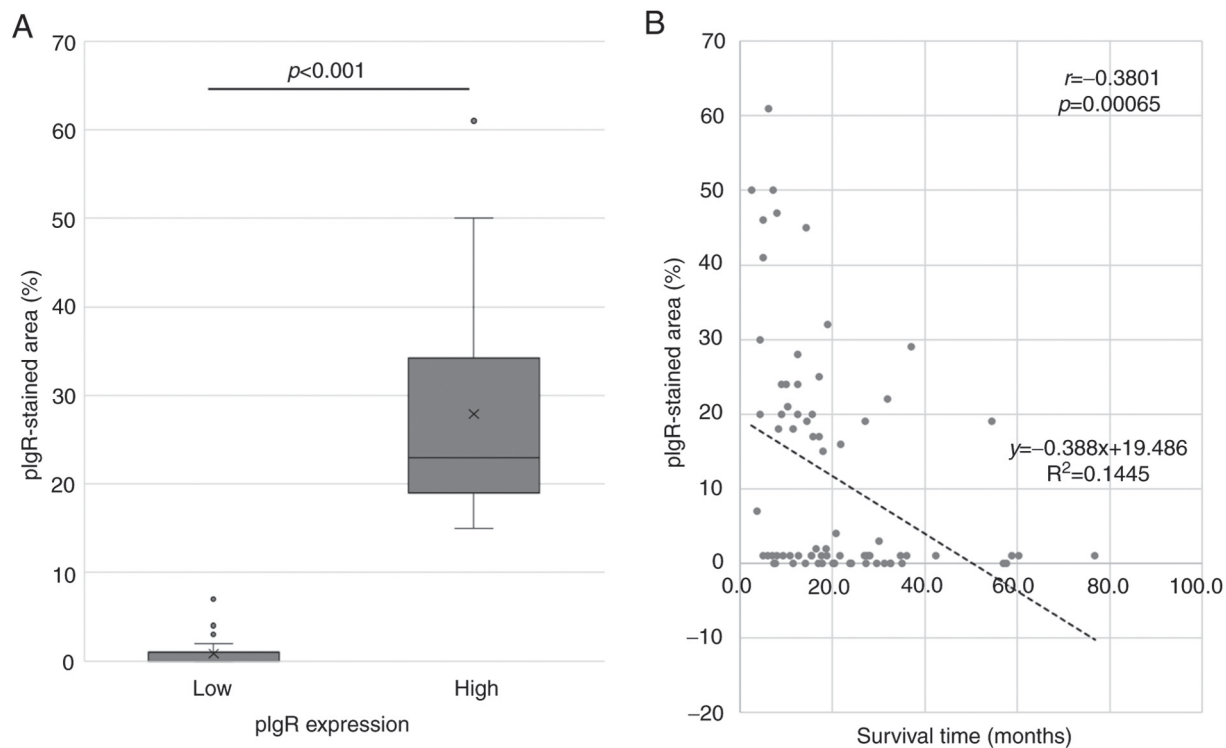


Table SI. Pancreatic cancer PDXs established in this study.

Patient no.	Age	Sex	Tumor location	Pathogenic diagnosis	Pathological stage	Generation of PDX
1	62	Female	Head	Moderately differentiated tubular adenocarcinoma	T3N1M0 StageIIB	G4
2	70	Male	Head	Poorly differentiated tubular adenocarcinoma	T3N1M0 StageIIB	G5
3	73	Female	Body	Moderately differentiated tubular adenocarcinoma	T4N1M0 StageIII	G5
4	72	Male	Pancreatic body/tail	Well-differentiated tubular adenocarcinoma	T4N2M0 StageIII	G6
5	64	Female	Body	Poorly differentiated tubular adenocarcinoma	T4N1M0 StageIII	G6
6	71	Male	Head	Adenosquamous carcinoma	T3N1M0 StageIIB	G5
7	79	Female	Body	Moderately differentiated tubular adenocarcinoma	T4N1M0 StageIII	G6
8	75	Female	Head	Moderately differentiated tubular adenocarcinoma	T4N0M0 StageIII	G7
9	55	Male	Head	Well-differentiated tubular adenocarcinoma	T4N0M0 StageIII	G6
10	51	Female	Head	Poorly differentiated tubular adenocarcinoma	T3N1M0 StageIIB	G6

PDXs, patient-derived xenografts.

Table SII. The list of 193 genes analyzed by RNA sequencing using NGS.

ABHD2	C6orf15	DYSF	GPX3	MACF1	PKD1	SIK3	TMEM40
ABL2	C9orf9	EGLN2	HDAC9	MAP3K9	PLA2G4C	SLAMF7	TP53INP1
ACE	CABYR	EP300	HIPK2	MAVS	PLEC	SLC26A9	TRIO
AHNAK2	CCDC153	EPHB3	HSD17B7	MID1	PLEKHB1	SLC43A2	TRPV4
AKAP13	CD74	EPPK1	HSPB8	MKLN1	PLK2	SLC5A1	TSACC
AKAP9	CDKN1A	ERC1	HSPG2	MLXIP	PLPP3	SORBS1	TSPYL2
ALOX5	CHST15	FAM24B	IFI6	MRAS	PPM1H	SPIB	TTR
ALOX5AP	CLASP1	FAT1	IFIT1	MUC20	PRKDC	SPIN2B	UBR4
ALPK3	CLIC5	FHL1	IGF2R	MUC5B	PRSS1	SRCAP	UGGT1
ANK3	CLU	FILIP1L	INPP5J	MX1	PRSS2	ST6GAL1	USP9X
ANKRD17	CPZ	FLNC	IQSEC1	MXRA8	REG4	SYNPO	VPS13C
APOE	CREB3L1	FN1	KIAA1671	MYLK	RGL1	SYTL3	WFDC2
ARHGEF12	CTNND1	FOLR1	KLK5	MYO10	RGMA	TAX1BP3	ZKSCAN1
ARID1A	CX3CL1	FOXJ1	KLK6	NCF4	RNF213	TBC1D16	ZNF385A
ARID5B	CXCL6	GDF15	KLK7	NSD1	RRAD	TCF7	ZNF618
ARRDC4	CYFIP2	GGT1	KMT2A	NTN4	SAA1	TCN1	
ASH1L	DGAT2	GOLGB1	KRT23	NXN	SAA2	TGFB2	
ATF7IP	DGKH	GOLT1A	LCN2	OLFM4	SEC16A	TGFBR3	
BAMBI	DOK5	GPR132	LPP	PARVA	SERPINA1	TGM2	
BCAM	DST	GPR176	LRRC27	PCYOX1L	SERPINB7	TIMP2	
BSCL2	DUOXA2	GPSM1	LUZP1	PI3	SEZ6L2	TLN1	
C2	DYNC1H1	GPX2	LYNX1	PIGR	SHROOM3	TMEM25	

NGS, next-generation sequencing.