

**Supplementary Table S2**

Case	Diagnosis	Tumor differentiation	Tumor location in pancreas	SMAS4 IHC	ID1–KLF5–SOX4–	ID1–KLF5+SOX4–	ID1–KLF5–SOX4+	ID1–KLF5+SOX4+	ID1+KLF5–SOX4–	ID1+KLF5+SOX4–	ID1+KLF5–SOX4+	ID1+KLF5+SOX4+
1	PDAC	Poor	Head	negative	1.47%	0.57%	12.26%	6.00%	47.78%	13.02%	5.16%	13.19%
2	PDAC	Moderate	Head	positive	17.11%	32.53%	0.63%	14.19%	12.09%	15.64%	5.30%	2.52%
3	PDAC	Moderate	Body and tail	negative	31.07%	12.86%	3.72%	9.21%	17.17%	15.81%	4.83%	5.34%
4	PDAC	Moderate to poor	Head	positive	21.68%	40.18%	0.61%	25.21%	0.79%	1.09%	10.21%	0.23%
5	PDAC	Moderate	Head	negative	7.62%	14.55%	3.75%	30.00%	7.07%	16.83%	11.79%	8.68%
6	PDAC	Moderate	Head	positive	15.71%	14.49%	2.06%	5.51%	17.86%	36.17%	4.90%	3.30%
<b>Mean</b>					15.77%	19.20%	3.84%	15.02%	17.13%	16.43%	7.03%	5.54%
<b>Median</b>					16.41%	14.52%	2.89%	11.70%	14.63%	15.72%	5.23%	4.32%
<b>Min</b>					1.47%	0.57%	0.61%	5.51%	0.79%	1.09%	4.83%	0.23%
<b>Max</b>					31.07%	40.18%	12.26%	30.00%	47.78%	36.17%	11.79%	13.19%

**Supplementary Table S2.** Six surgically resected formalin-fixed and paraffin-embedded PDA samples collected within the past year and scored for SMAD4 by IHC were subjected to multiplex IHC for ID1, KLF5, SOX4 and pan-cytokeratin. We scored a total of 49,639 cells across the 6 samples (5,212-12,371 cells per sample).