

**Table S1.** Immunohistochemical scores reflecting MUC6 and  $\alpha$ GlcNAc staining in each lesion of 20 cases associated with the PanIN-IDAC sequence.

Case no.	Low-grade PanIN		High-grade PanIN/IDS		IDAC	
	MUC6	$\alpha$ GlcNAc	MUC6	$\alpha$ GlcNAc	MUC6	$\alpha$ GlcNAc
1	3 <sup>†</sup>	2	1	0	1	0
2	n.e. <sup>‡</sup>	n.e.	n.e.	n.e.	1	1
3	2	2	3	0	2	0
4	2	1	2	1	2	2
5	1	1	2	0	1	0
6	3	1	2	0	1	1
7	3	2	2	2	1	1
8	3	3	1	1	1	0
9	3	2	n.e.	n.e.	1	0
10	3	1	n.e.	n.e.	0	0
11	3	3	n.e.	n.e.	1	0
12	3	3	n.e.	n.e.	2	1
13	n.e.	n.e.	n.e.	n.e.	0	0
14	3	2	n.e.	n.e.	1	0
15	3	3	2	3	1	1
16	3	2	1	1	0	0
17	1	1	1	0	0	0
18	2	3	2	1	2	1
19	1	1	0	0	0	0
20	n.e.	n.e.	n.e.	n.e.	0	1

<sup>†</sup>Immunohistochemical scores ranged from 0 to 3: 0 ( $\leq 5\%$  positive cells), 1 (6-33% positive cells), 2 (34-66% positive cells) or 3 ( $\geq 67\%$  positive cells).

<sup>‡</sup>n.e. : not evaluated.

**Table S2.** Immunohistochemical scores reflecting MUC6 and  $\alpha$ GlcNAc staining in each lesion of 20 cases associated with the IPMN-IPMNAIC sequence.

Case no.	Low-grade IPMN		High-grade IPMN		IPMNAIC	
	MUC6	$\alpha$ GlcNAc	MUC6	$\alpha$ GlcNAc	MUC6	$\alpha$ GlcNAc
21 <sup>†</sup>	2 <sup>‡</sup>	2	n.e. <sup>§</sup>	n.e.	n.e.	n.e.
22	2	2	2	2	1	0
23	3	1	n.e.	n.e.	n.e.	n.e.
24	1	1	2	0	n.e.	n.e.
25	1	1	0	0	0	0
26	1	2	1	1	0	0
27	2	2	n.e.	n.e.	n.e.	n.e.
28	2	1	n.e.	n.e.	n.e.	n.e.
29	2	2	n.e.	n.e.	n.e.	n.e.
30	2	1	3	1	n.e.	n.e.
31	2	1	n.e.	n.e.	n.e.	n.e.
32	3	2	n.e.	n.e.	n.e.	n.e.
33	3	1	n.e.	n.e.	n.e.	n.e.
34	3	1	n.e.	n.e.	n.e.	n.e.
35	3	3	n.e.	n.e.	n.e.	n.e.
36	2	1	3	0	1	0
37	3	3	0	0	0	0
38	1	1	2	1	1	0
39	n.e.	n.e.	1	0	0	0
40	0	0	0	1	0	0

<sup>†</sup>Case numbers are continued from Table S1.

<sup>‡</sup>Immunohistochemical scores ranged from 0 to 3: 0 ( $\leq 5\%$  positive cells), 1 (6-33% positive cells), 2 (34-66% positive cells) or 3 ( $\geq 67\%$  positive cells).

<sup>§</sup>n.e.: not evaluated.

**Table S3.** Morphological subclassification of low-grade IPMN lesions and high-grade IPMN lesions in 20 cases in IPMN-IPMNAIC sequence.

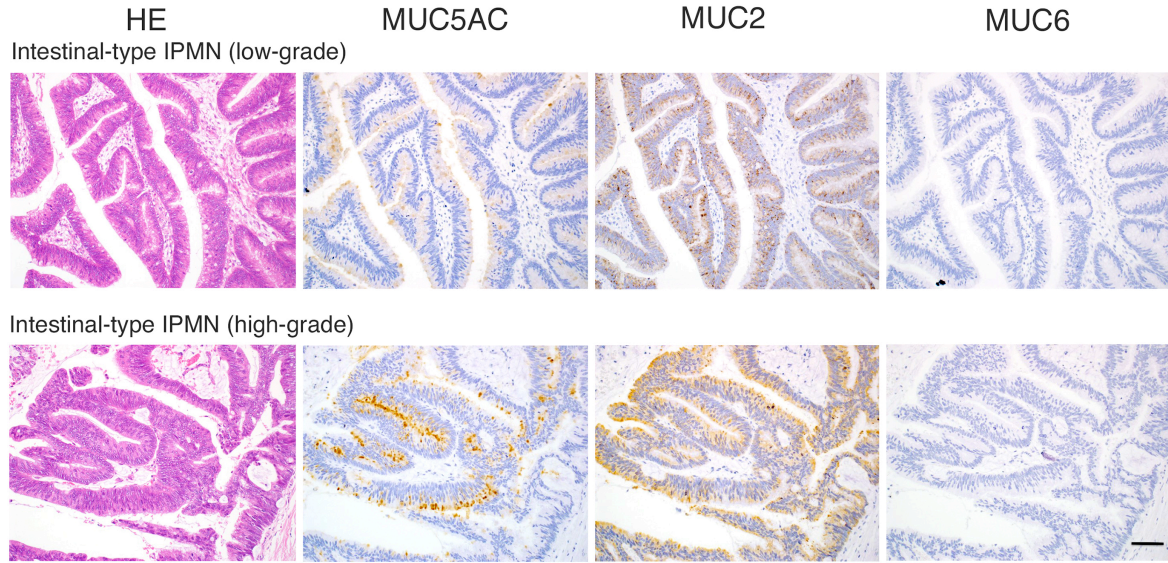
Case no.	Low-grade IPMN	High-grade IPMN
	Morphological subclassification	Morphological subclassification
21 <sup>†</sup>	gastric-type <sup>‡</sup>	n.e. <sup>§</sup>
22	gastric-type	gastric-type
23	gastric-type	n.e.
24	gastric-type	pancreatobiliary-type <sup>¶</sup>
25	gastric-type	pancreatobiliary-type
26	gastric-type	pancreatobiliary-type
27	gastric-type	n.e.
28	gastric-type	n.e.
29	gastric-type	n.e.
30	gastric-type	pancreatobiliary-type
31	gastric-type	n.e.
32	gastric-type	n.e.
33	gastric-type	n.e.
34	gastric-type	n.e.
35	gastric-type	n.e.
36	gastric-type	gastric-type
37	gastric-type	pancreatobiliary-type
38	gastric-type	pancreatobiliary-type
39	n.e.	pancreatobiliary-type
40	gastric-type	pancreatobiliary-type

<sup>†</sup>Case numbers are continued from Table S1.

<sup>‡</sup>gastric-type: gastric-type IPMN.

<sup>§</sup>n.e.: not evaluated.

<sup>¶</sup>pancreatobiliary-type: pancreatobiliary-type IPMN.



**Fig. S1.** Immunohistochemical expression of MUC5AC, MUC2, and MUC6 in intestinal-type IPMN. MUC5AC and MUC2 are expressed in tumor cells of intestinal-type IPMN, irrespective of histological grade. By contrast, MUC6 is not detected in the tumor cells. Primary antibody used for MUC2 immunohistochemistry was anti-MUC2 antibody (clone Ccp58, mouse IgG, Novocastra). Information about anti-MUC5AC and anti-MUC6 antibodies was provided in the main text. HE, hematoxylin and eosin staining. Bar = 100  $\mu$ m.