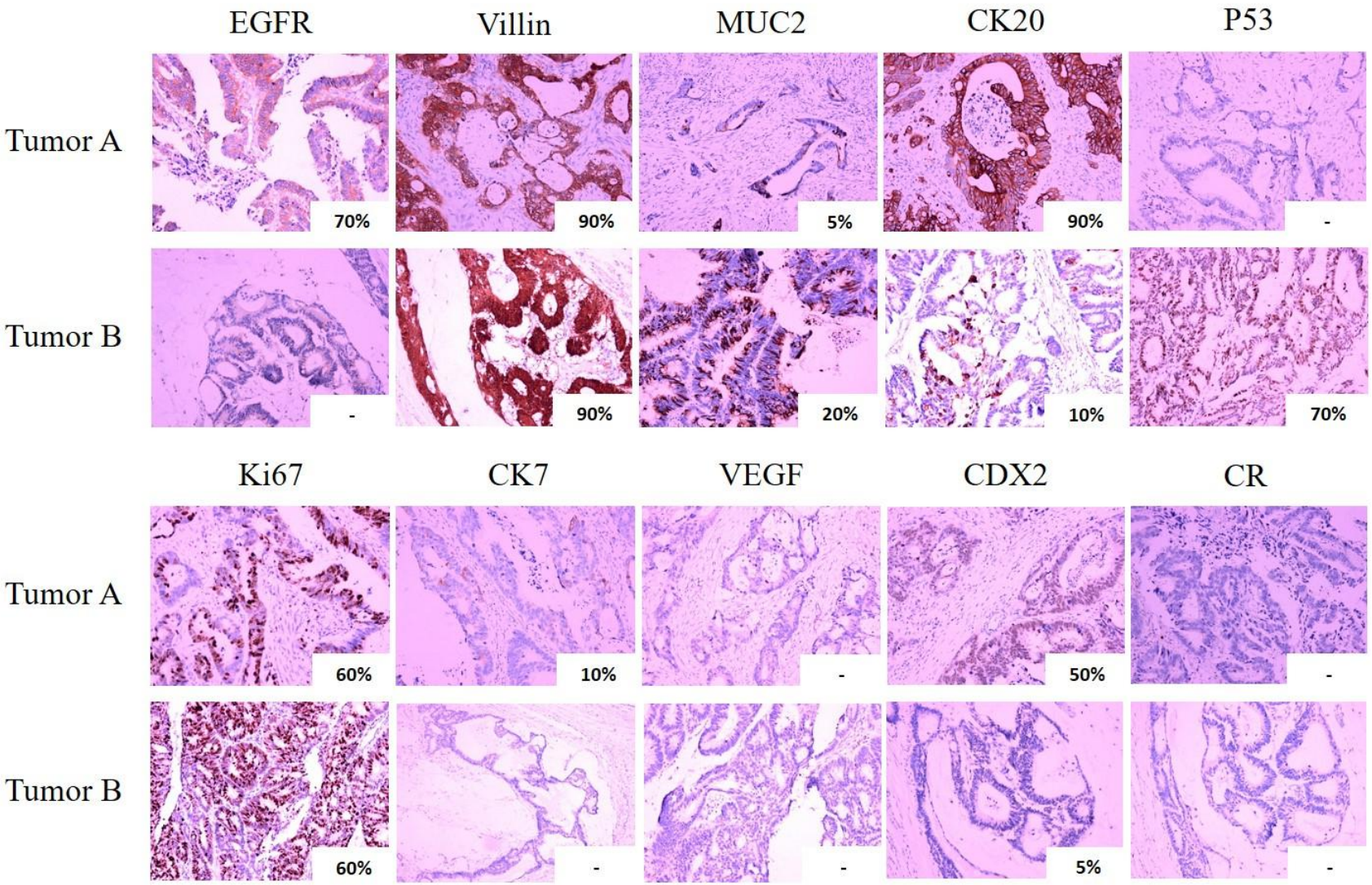
EGFR
Villin
MUC2
CK20
P53
Tumor A
70%
90%
5%
90%
-
Tumor B
-
90%
20%
10%
70%
Ki67
CK7
VEGF
CDX2
CR
Tumor A
60%
10%
-
50%
-
Tumor B
60%
-
-
5%
-

Supplementary Figure 1 Immunohistochemical (IHC) examinations (200×) of the tumor A was positive for EGFR (70%), Villin (90%), MUC2 (5%), CK20 (90%), Ki67 (60%), CK7 (10%) and CDX2 (50%) and negative for P53, VEGF and CR. Tumor B was positive for Villin (90%), MUC2 (20%), CK20 (10%), P53 (70%), Ki67 (60%), and CDX2 (5%) and negative for EGFR,CK7, VEGF and CR.

Supplementary Table 1 The allele frequencies of genetic alterations detected by targeted NGS in the tumor A and B, and serial plasma ctDNA

Gene	Alteration	Jun/2020		Early Apr/2021		Late Apr/2021	Mid May/2021	Late May/2021	Aug/2021	Sep/2021	Oct/2021
		Tumor A (FFPE)	Plasma ctDNA	Tumor B (FFPE)	Plasma ctDNA	Plasma ctDNA					
PIK3CA	H1047L	40.0%	-	-	-	-	-	-	-	-	-
APC	S1436Rfs*37	38.4%	-	-	-	-	-	-	-	-	-
APC	R554*	35.9%	-	-	-	-	-	-	-	-	-
KRAS	G12D	41.9%	-	-	-	-	-	-	-	-	-
PPP2R1A	R183W	40.1%	-	-	-	-	-	-	-	-	-
CBLB	R272Q	39.6%	-	-	-	-	-	-	-	-	-
NSD1	R1948L	5.1%	-	-	-	-	-	-	-	-	-

PTCH1	A1103T	40.5%	-	-	-	-	-	-	-	-	-
TAP1	P617T	1.2%	-	-	-	-	-	-	-	-	-
WAS	D292N	81.3%	-	-	-	-	-	-	-	-	-
APC	N2810D	-	20.4%	8%	10.8%	0.1%	0.1%	0.2%	7.2%	20.0%	16.1%
APC	E941*	-	41.8%	18.5%	20.1%	0.3%	-	-	16.9%	48.5%	35.8%
APC	I231Yfs*62	-	20.0%	21.6%	10.6%	0.6%	-	-	6.7%	18.4%	15.8%
TP53	L32Sfs*11	-	64.8%	31.8%	32.5%	0.7%	0.3%	-	21.6%	60.1%	45.2%
NOTCH 2	R1875W	-	13.8%	-	7.2%	0.3%	-	0.2%	6.6%	19.2%	12.9%
LRP1B	G978L	-	17.6%	-	9.6%	0.2%	-	-	6.6%	16.1%	13%
PDGFR-β	E964K	-	13.9%	-	6.4%	0.3%	-	-	5.3%	15.4%	12.6%
PARK2	c.529_534+2438del	-	9.6%	-	3.3%		-	-	2.8%	8.4%	7.0%
HGF	V495F	-	-	-	-	-	-	-	4.7%	7.5%	4.0%
MITF	R316S	-	-	-	-	-	-	-	4.8%	9.8%	4.6%
RAD51D	G107*	-	-	-	-	-	-	-	5.2%	8.4%	5.7%

RET	KIF5B-RET fusion	-	-	-	-	-	-	-	8.8%	18.5%	13.1%
CHD4	E161D	-	-	-	-	-	-	-	-	0.6%	0.1%
FLT3	A988S	-	-	-	-	-	-	-	-	0.4%	0.2%
RHBDF2	Y229D	-	-	-	-	-	-	-	-	35.5%	36.8%
XPC	D599N	-	-	-	-	-	-	-	-	0.8%	0.1%

FFPE: formalin-fixed, paraffin-embedded; "-": not detected; ctDNA: circulating tumor DNA.