

**Supplemental Table S2. SHH and GLI1 are enhanced in primary human UC specimens.**

Case No.	Pathology <sup>\$</sup>	Immunohistochemistry		
		GLI1	SHH	
1	High grade, T2	T <sup>#</sup>	+++	+++
		AN <sup>#</sup>	-*	-
2	High grade, T2	T	+++	+++
		AN	-	-
3	High grade, T2	T	+++	+
4	High grade, T1	T	+++	+++
5	High grade, T1	T	-	-
6	High grade, CIS	T	+++	++
		AN	+	-
7	Low grade, Ta	T	++	+++
8	Low grade, Ta	T	++	-
		AN	-	-
9	Cystitis cystica <sup>&amp;</sup>		+++	++
10	Cystitis cystica		+++	+
11	Cystitis cystica		++	+
12	Cystitis cystica		-	-
13	Cystitis cystica		-	-
14	Normal Bladder		-	+
15	Normal Bladder		+	-
16	Normal Bladder		+	+
17	Normal Bladder		-	-

<u>Summary</u>	UC	Cystitis cystica	Normal <sup>%</sup>
<b>GLI1-positive; SHH-positive</b>	6	3	1
<b>GLI1-negative; SHH-positive</b>	0	0	1
<b>GLI1-positive; SHH-negative</b>	1	0	2
<b>GLI1-negative; SHH-negative</b>	1	2	4
<b>Total cases:</b>	8	5	8

<sup>\$</sup> Tumor grading and staging were performed according to the 1998 WHO/ISUP and 2002 TNM classification (Supplemental Reference 10 and 11).

<sup>#</sup> T: tumor; AN: adjacent normal.

\* GLI1 is positive at the basal layer of the urothelium in this case (see Figure 7H).

& See supplemental Figure S9 for an example.

% Normal bladder and adjacent normal.