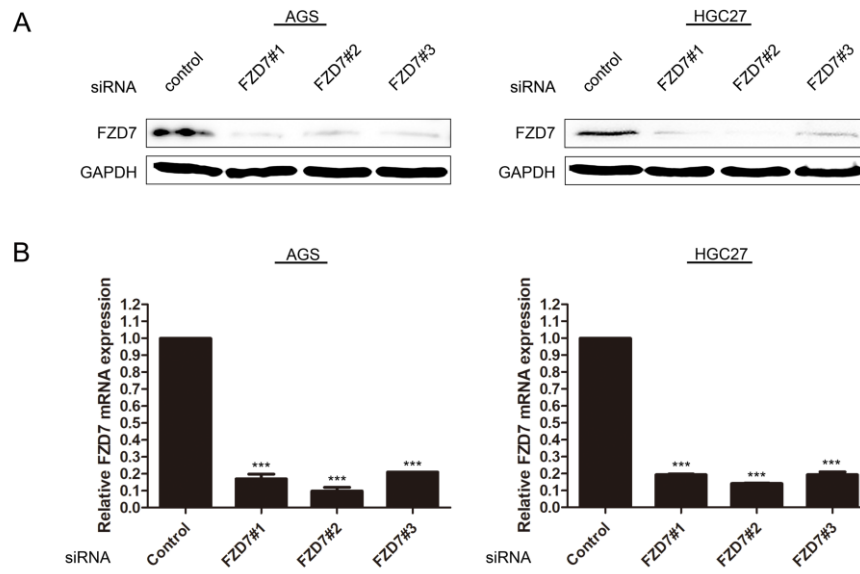


## Supplementary figure and tables



### Supplementary figure 1: Preparation and selection of FZD7 siRNAs

(A) FZD7 protein level was tested in FZD7-silencing and its respective control cells by western blotting. GAPDH was used as a loading control. (B) FZD7 mRNA level was detected in FZD7-silencing and its respective control cells by QPCR (\*\*\*) indicates  $P < 0.001$ , independent Student's t-test).

**Supplementary Table I.** Staining index of FZD7 expression and patients' clinicopathological features in 251 informative cases.

Case No.	Age	Sex	Histological type <sup>1</sup>	TNM stage	Organ metastasis	Survival Time (month)	Outcome <sup>2</sup>	Staining index of FZD7 expression
1	50	F	UC	I	M0	81	L	0
2	61	M	WA	III	M0	21	D	4
3	40	M	PA	III	M0	60	D	3
4	73	M	WA	IV	M1	35	D	3
5	61	M	WA	IV	M1	19	D	7
6	33	F	UC	II	M0	82	M	5
7	73	M	WA	II	M0	20	D	3
8	66	M	PA	III	M0	33	D	5
9	67	M	WA	II	M0	18	D	5
10	47	F	SRC	II	M0	36	D	4
11	61	M	PA	III	M0	7	D	4
12	62	M	PA	II	M0	11	D	3
13	76	F	MA	I	M0	78	D	6
14	36	M	PA	IV	M1	10	D	0
15	73	M	WA	IV	M1	39	D	6
16	47	F	PA	IV	M1	7	D	6
17	67	M	PA	I	M0	56	D	6
18	19	F	PA	II	M0	18	D	2
19	49	M	MA	II	M0	110	D	1
20	66	M	SRC	II	M0	143	L	5
21	59	M	WA	III	M0	48	D	3
22	44	F	PA	I	M0	148	L	0
23	69	M	PA	IV	M1	6	D	1
24	59	M	PA	III	M0	140	L	5
25	71	M	WA	II	M0	12	D	1
26	59	M	WA	I	M0	139	L	0
27	38	F	PA	II	M0	145	L	1
28	35	M	PA	IV	M1	145	L	6
29	70	F	SRC	III	M0	18	D	4
30	70	M	MA	II	M0	139	L	3
31	84	F	WA	II	M0	133	L	3
32	54	M	PA	II	M0	8	D	3
33	67	M	WA	II	M0	7	D	5
34	54	M	WA	I	M0	143	L	0
35	47	F	SRC	IV	M1	23	D	0
36	54	F	WA	IV	M1	39	M	4
37	62	M	PA	IV	M1	6	D	4
38	60	M	WA	I	M0	141	L	0

39	51	F	PA	I	M0	128	L	0
40	58	M	WA	I	M0	126	L	1
41	44	F	PA	I	M0	122	L	0
42	61	F	PA	I	M0	120	L	2
43	60	M	WA	I	M0	19	M	4
44	58	M	WA	I	M0	122	L	1
45	63	M	SRC	III	M0	118	L	4
46	68	F	PA	IV	M1	112	L	4
47	42	F	PA	IV	M1	71	D	6
48	48	M	SRC	IV	M1	6	D	4
49	43	F	PA	III	M0	118	L	3
50	53	M	WA	III	M0	117	L	6
51	57	F	MA	III	M0	110	L	3
52	53	M	SRC	II	M0	111	L	2
53	50	M	WA	I	M0	33	M	2
54	69	M	WA	III	M0	11	D	4
55	32	M	PA	III	M0	110	L	4
56	64	F	WA	II	M0	109	L	2
57	56	F	SRC	IV	M1	13	D	4
58	52	M	PA	III	M0	7	D	7
59	70	M	WA	IV	M1	108	L	4
60	54	M	PA	IV	M1	4	D	7
61	74	M	WA	I	M0	68	D	0
62	63	M	PA	III	M0	21	D	3
63	70	F	WA	II	M0	108	L	2
64	61	M	PA	III	M0	19	D	4
65	70	M	WA	I	M0	94	D	0
66	71	F	PA	IV	M1	37	D	4
67	57	F	WA	III	M0	107	L	4
68	56	F	WA	III	M0	68	D	4
69	72	M	PA	IV	M1	11	D	4
70	41	F	PA	IV	M1	24	D	4
71	40	M	PA	II	M0	7	M	2
72	38	M	PA	IV	M1	6	D	4
73	54	M	PA	IV	M1	3	M	6
74	58	M	WA	II	M0	106	L	0
75	41	M	PA	IV	M1	12	D	4
76	61	M	WA	II	M0	105	L	5
77	46	M	WA	IV	M1	26	D	6
78	66	M	PA	I	M0	107	L	0
79	58	M	PA	III	M0	35	M	4
80	70	M	MA	II	M0	64	D	2
81	57	M	WA	I	M0	105	L	2

82	51	M	PA	IV	M1	65	D	3
83	50	F	PA	II	M0	73	M	3
84	70	M	MA	II	M0	111	L	1
85	63	M	WA	IV	M1	5	D	4
86	69	M	MA	II	M0	111	L	2
87	63	M	WA	III	M0	104	L	5
88	72	M	WA	I	M0	110	L	4
89	52	M	SRC	III	M0	17	D	4
90	72	M	WA	III	M0	27	D	4
91	68	M	SRC	IV	M1	33	D	1
92	51	M	PA	I	M0	35	D	1
93	65	F	WA	II	M0	46	D	4
94	33	M	WA	I	M0	63	M	4
95	52	M	SRC	II	M0	27	D	4
96	30	M	PA	III	M0	4	D	4
97	43	M	PA	IV	M1	4	D	3
98	52	F	UC	I	M0	104	L	1
99	48	M	WA	I	M0	102	L	0
100	76	M	MA	IV	M1	62	D	6
101	61	F	PA	III	M0	10	D	4
102	48	M	WA	II	M0	35	M	2
103	45	M	PA	IV	M1	5	M	4
104	54	M	PA	III	M0	101	L	4
105	60	M	PA	III	M0	61	D	4
106	64	M	UC	III	M0	18	D	2
107	58	M	WA	III	M0	108	L	4
108	51	F	PA	III	M0	50	M	3
109	48	F	SRC	IV	M1	24	D	6
110	51	M	WA	II	M0	100	L	2
111	55	M	WA	I	M0	72	M	0
112	70	M	PA	IV	M1	17	D	4
113	45	M	PA	IV	M1	7	D	4
114	70	M	UC	I	M0	100	L	1
115	48	F	WA	I	M0	100	L	0
116	47	F	PA	IV	M1	14	D	3
117	61	F	WA	I	M0	100	L	1
118	49	M	PA	III	M0	107	L	5
119	70	M	MA	IV	M1	8	D	4
120	71	F	WA	I	M0	106	L	2
121	28	F	PA	IV	M1	12	D	6
122	82	M	WA	II	M0	98	L	2
123	70	M	MA	II	M0	98	L	2
124	28	M	PA	III	M0	20	D	4

125	74	F	WA	II	M0	98	L	2
126	61	M	PA	III	M0	12	D	6
127	70	M	PA	IV	M1	18	D	6
128	68	F	WA	II	M0	104	L	0
129	72	M	WA	III	M0	97	L	5
130	72	M	MA	III	M0	5	M	4
131	49	F	PA	III	M0	46	M	3
132	60	M	PA	III	M0	97	L	4
133	45	F	PA	IV	M1	57	D	0
134	63	M	PA	III	M0	12	D	4
135	56	M	WA	I	M0	96	L	0
136	47	M	PA	IV	M1	103	L	4
137	35	F	PA	IV	M1	22	D	4
138	64	M	PA	IV	M1	23	D	6
139	51	F	WA	III	M0	95	L	3
140	67	F	WA	I	M0	102	L	0
141	55	M	PA	II	M0	95	L	2
142	52	M	WA	II	M0	31	D	4
143	74	M	PA	II	M0	57	D	5
144	73	M	PA	I	M0	65	D	1
145	63	M	PA	III	M0	2	D	5
146	64	M	PA	I	M0	81	D	1
147	44	M	PA	IV	M1	28	D	7
148	31	M	SRC	IV	M1	101	L	4
149	50	M	PA	IV	M1	94	L	4
150	52	M	PA	IV	M1	4	D	6
151	53	M	PA	II	M0	17	M	2
152	56	F	PA	II	M0	34	D	3
153	33	M	WA	IV	M1	3	D	4
154	57	M	WA	II	M0	49	D	3
155	62	F	WA	II	M0	99	L	2
156	53	M	PA	II	M0	99	L	1
157	50	F	SRC	IV	M1	94	L	1
158	44	M	PA	III	M0	81	D	3
159	58	F	PA	IV	M1	5	D	6
160	56	F	PA	III	M0	92	L	4
161	57	F	PA	IV	M1	16	D	6
162	49	F	SRC	IV	M1	21	D	1
163	66	M	PA	II	M0	91	L	2
164	59	M	WA	IV	M1	91	D	4
165	66	M	PA	II	M0	98	L	3
166	58	F	SRC	II	M0	27	D	0
167	55	M	PA	II	M0	92	L	1

168	66	M	PA	IV	M1	12	D	6
169	75	F	PA	III	M0	49	D	3
170	63	M	WA	I	M0	39	D	0
171	49	M	PA	III	M0	56	D	4
172	75	F	WA	IV	M1	13	D	4
173	63	M	PA	II	M0	89	L	2
174	37	F	PA	I	M0	89	L	1
175	43	M	PA	IV	M1	25	D	1
176	35	F	PA	II	M0	95	L	3
177	35	M	PA	IV	M1	8	D	4
178	46	M	PA	II	M0	89	L	3
179	63	M	WA	III	M0	17	D	4
180	47	M	WA	III	M0	92	D	3
181	62	M	UC	I	M0	88	L	0
182	50	F	PA	IV	M1	8	D	6
183	69	M	PA	I	M0	95	L	2
184	67	M	PA	IV	M1	15	D	6
185	39	F	PA	IV	M1	11	D	6
186	59	M	SRC	II	M0	47	D	2
187	37	F	PA	IV	M1	10	D	3
188	47	M	PA	III	M0	52	D	3
189	49	M	PA	IV	M1	20	D	4
190	68	M	WA	IV	M1	45	M	4
191	51	F	PA	II	M0	45	D	5
192	57	M	PA	II	M0	84	L	2
193	47	M	PA	II	M0	92	L	1
194	72	F	PA	II	M0	84	L	4
195	66	M	SRC	II	M0	8	M	3
196	55	M	WA	II	M0	84	L	2
197	52	M	PA	II	M0	84	L	2
198	37	F	PA	II	M0	84	L	2
199	80	F	PA	IV	M1	11	D	4
200	50	M	WA	II	M0	20	D	1
201	62	M	PA	II	M0	43	D	4
202	39	F	PA	II	M0	74	M	5
203	54	M	MA	II	M0	84	L	1
204	62	M	SRC	I	M0	90	L	2
205	50	F	SRC	I	M0	90	L	2
206	32	M	PA	III	M0	11	D	5
207	58	M	PA	IV	M1	9	D	7
208	63	M	WA	IV	M1	82	L	3
209	77	M	PA	IV	M1	19	D	4
210	49	F	PA	I	M0	82	L	1

211	59	M	MA	II	M0	82	L	2
212	50	F	SRC	III	M0	8	D	6
213	68	M	PA	IV	M1	82	L	6
214	49	F	PA	II	M0	41	M	2
215	50	M	PA	IV	M1	5	D	3
216	51	M	PA	IV	M1	5	D	7
217	30	F	SRC	IV	M1	5	D	3
218	60	M	WA	IV	M1	12	D	7
219	46	M	UC	II	M0	87	L	5
220	52	M	PA	I	M0	87	L	1
221	33	F	PA	IV	M1	3	D	7
222	44	M	PA	II	M0	81	L	2
223	68	M	PA	IV	M1	57	D	4
224	58	F	PA	III	M0	86	L	5
225	41	M	WA	IV	M1	18	D	7
226	61	F	PA	III	M0	38	D	4
227	72	F	WA	II	M0	53	D	4
228	62	F	PA	II	M0	37	D	2
229	67	F	PA	II	M0	37	D	2
230	56	M	WA	II	M0	37	D	5
231	70	M	WA	IV	M1	9	D	6
232	49	F	PA	IV	M1	9	D	7
233	77	F	WA	III	M0	5	M	5
234	75	M	WA	II	M0	10	D	4
235	73	M	WA	III	M0	68	L	4
236	41	F	PA	I	M0	77	L	1
237	64	M	PA	I	M0	84	L	4
238	60	M	PA	III	M0	68	L	3
239	36	M	PA	II	M0	60	D	4
240	55	M	PA	I	M0	76	L	0
241	53	F	PA	I	M0	77	L	0
242	55	M	WA	II	M0	78	L	2
243	51	F	WA	III	M0	60	D	2
244	49	M	PA	IV	M1	4	D	7
245	50	M	WA	I	M0	84	L	1
246	55	M	PA	II	M0	10	D	2
247	31	F	PA	I	M0	14	M	0
248	44	M	WA	IV	M1	36	D	7
249	87	M	WA	II	M0	35	D	5
250	36	M	PA	II	M0	69	D	2
251	26	F	PA	II	M0	24	D	2

<sup>1</sup>Histological type: WA, well/moderately differentiated adenocarcinoma; PA, poorly differentiated adenocarcinoma; MA, mucinous adenocarcinoma; SRC, signet ring cell carcinoma; UC, undifferentiated carcinoma

<sup>2</sup>Outcome: L, live; D, death; M, miss

**Supplementary Table 2.** List of utilized primer sequences.

Gene	Forward Primer	Reverse Primer
<i>FZD7</i>	5'-GTGCCAACGGCCTGATGTA-3'	5'-AGGTGAGAACGGTAAAGAGCG-3'
<i>E-cadherin</i>	5'-AAAGGCCCATTCCTAAAAACCT-3'	5'-TGCGTTCTCTATCCAGAGGCT-3'
<i>N-cadherin</i>	5'-TTTGGGAGGGTAAAAGTTC-3'	5'-AAGAAACAGGCCACCACCCCTT-3'
<i>Vimentin</i>	5'-GACGCCATCAACACCGAGTT-3'	5'-CTTTGTCGTTGGTTAGCTGGT-3'
<i>Fibronectin</i>	5'-CGGTGGCTGTCAGTCAAAG-3'	5'-AAACCTCGGCTTCCTCCATAA-3'
<i>Snail</i>	5'-TCGGAAGCCTAACTACAGCGA-3'	5'-AGATGAGCATTGGCAGCGAG-3'
<i>Oct</i>	5'-CTTGAATCCCGAATGGAAAGGG-3'	5'-GTGTATATCCAGGGTGATCCTC-3'
<i>Nanog</i>	5'-TTTGTGGGCTGAAGAAAAC-3'	5'-AGGGCTGCTCTGAATAAGCAG-3'
<i>CD24</i>	5'-CTCCTACCCACGCAGATTTATTC-3'	5'-AGAGTGAGACCACGAAGAGAC-3'
<i>CD44</i>	5'-CTGCCGCTTTCAGGTGTA-3'	5'-CATTGTGGGCAAGGTGCTATT-3'
<i>CD133</i>	5'-AGTCGGAACTGGCAGATAGC-3'	5'-GGTAGTGTGTACTGGGCCAAT-3'
<i>ABC2</i>	5'-CAGGTGGAGGCAATCTTCGT-3'	5'-ACCTGTAAATCCGTTTCGTTT-3'
<i>GAPDH</i>	5'-GCACCGTCAAGGCTGAGAAC-3'	5'-TGGTGAAGACGCCAGTGGA-3'

**Supplementary Table 3.** Information of utilized antibodies.

Antibody	Dilution	Manufacturer
<i>FZD7</i>	1/500	Abcam (Cambridge, MA, US)
<i>E-cadherin</i>	1/1000	Cell Signaling Technology (Danvers, MA, US)
<i>N-cadherin</i>	1/1000	Cell Signaling Technology (Danvers, MA, US)
<i>Vimentin</i>	1/1000	Cell Signaling Technology (Danvers, MA, US)
<i>Fibronectin</i>	1/500	BD Biosciences (San Jose, CA, USA)
<i>Snail</i>	1/500	Cell Signaling Technology (Danvers, MA, US)
<i><math>\beta</math>-catenin</i>	1/1000	Cell Signaling Technology (Danvers, MA, US)
<i>MMP-7</i>	1/1000	Cell Signaling Technology (Danvers, MA, US)
<i>C-myc</i>	1/1000	Cell Signaling Technology (Danvers, MA, US)
<i>Cyclin D1</i>	1/1000	Cell Signaling Technology (Danvers, MA, US)
<i>GAPDH</i>	1/4000	CoWin Biotech (Beijing, China)
<i>Lamin B</i>	1/1000	Proteintech (Wuhan, China)