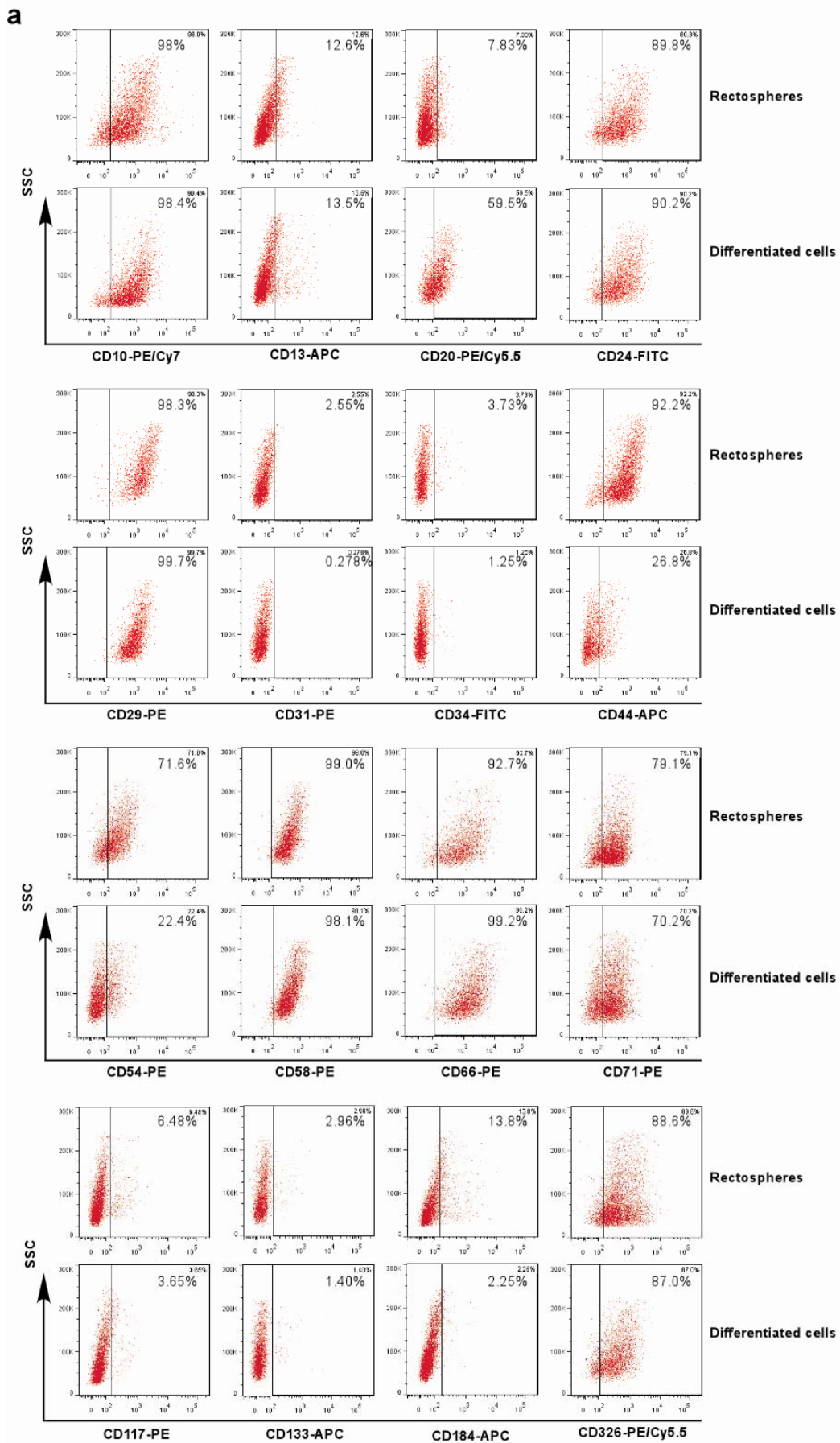
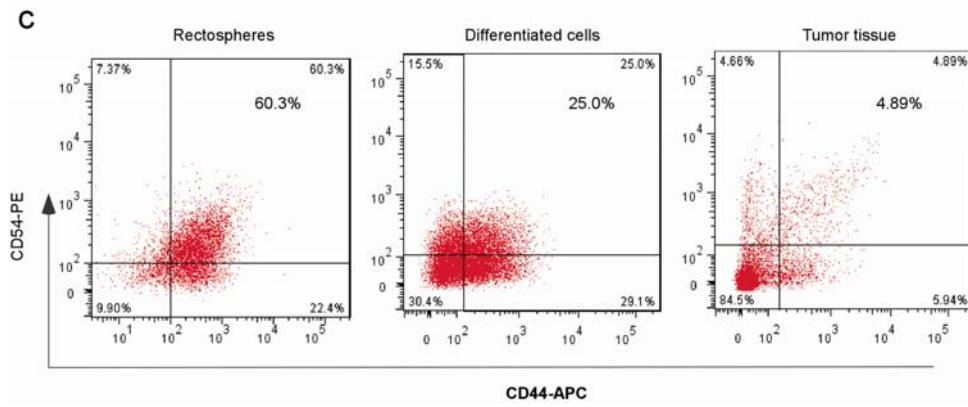
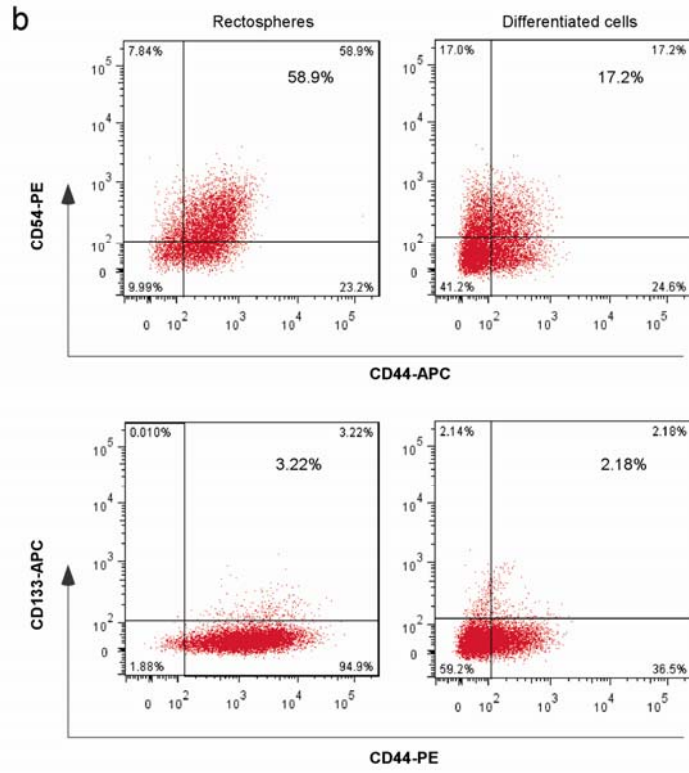
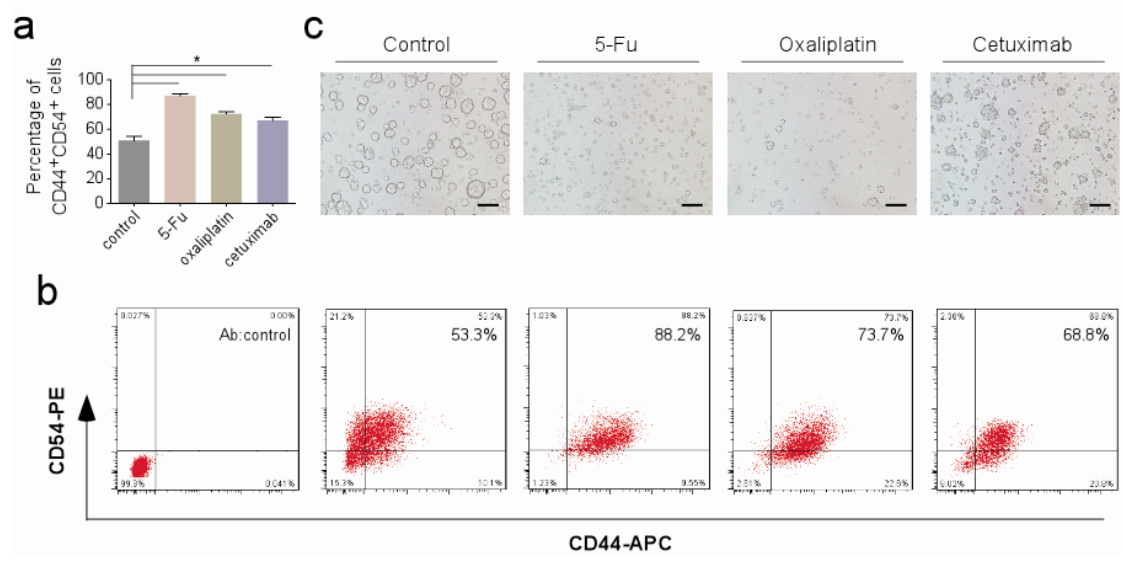


# Supplementary Figure 1

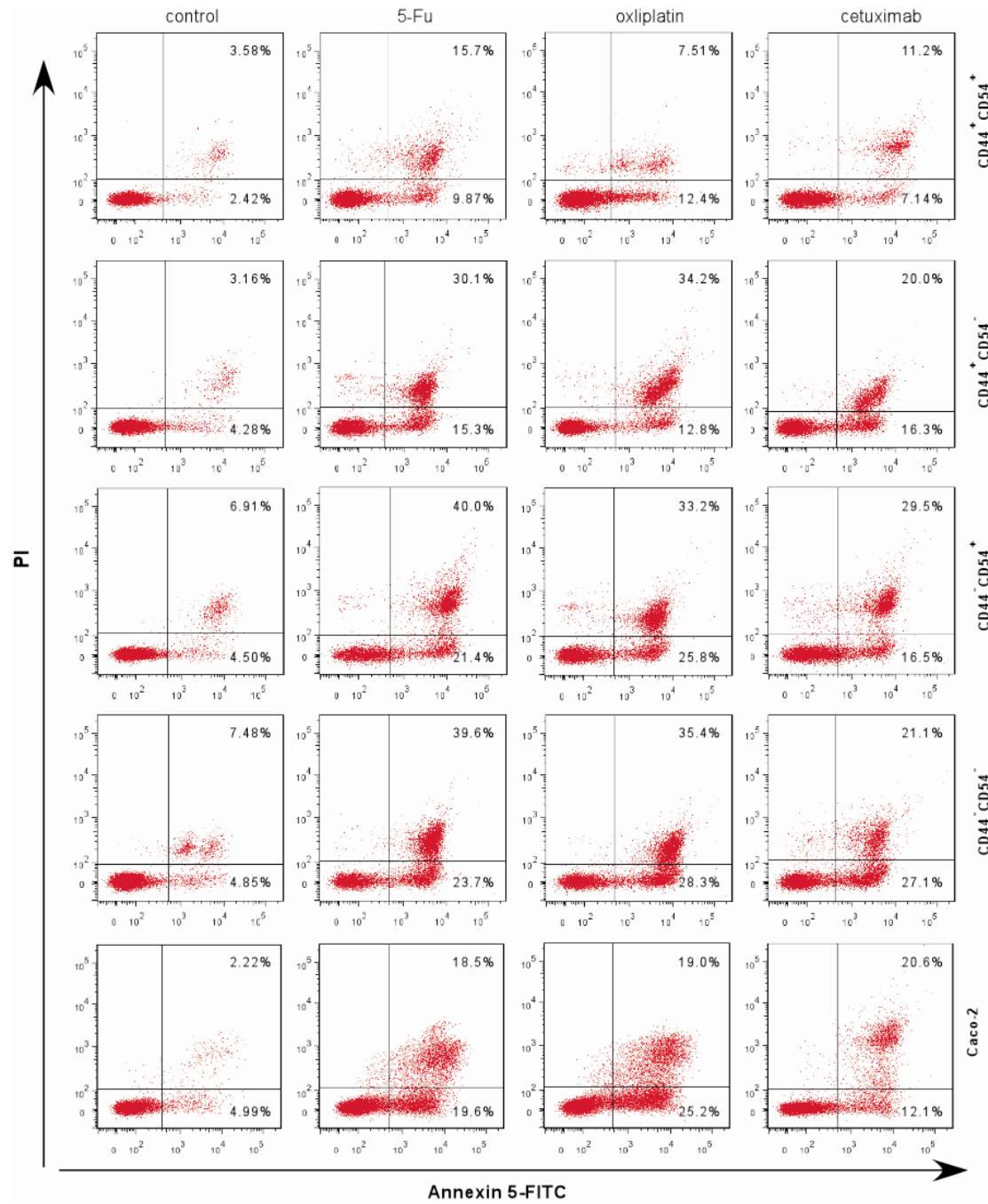




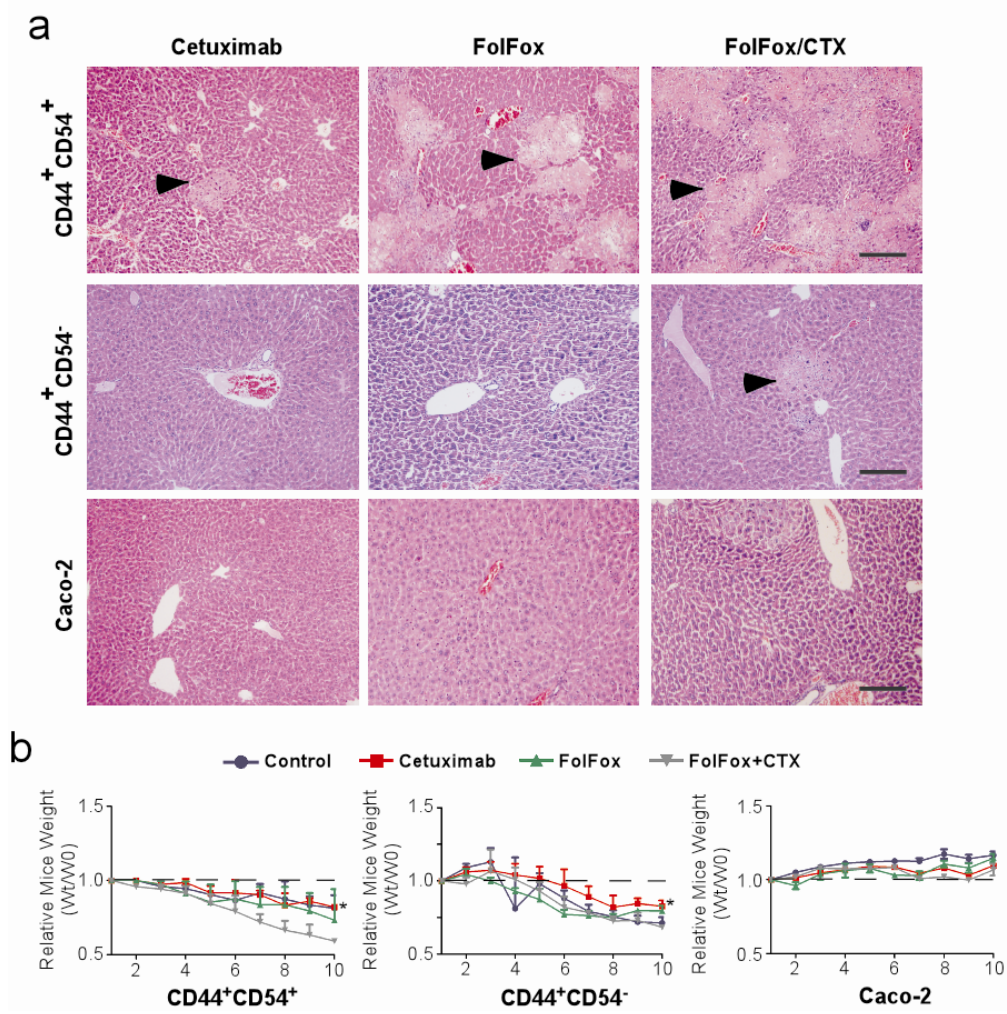
## Supplementary Figure 2



**Supplementary Figure 3**



Supplementary Figure 4



**Supplementary Table 1. Case description of rectal cancer cells**

Case	Gender	Age	Grade	Dukes stage	Sphere formation
1	male	57	Moderate	C	No
2	male	37	Mucinous	C	No
3	male	69	Moderate to Poor	C	No
4	male	44	Moderate	C	Yes
5	male	34	Moderate	C	Yes
6	female	45	Moderate	C	Yes
7	male	78	Moderate	C	No
8	female	38	Moderate	C	No
9	female	55	Moderate	B	Yes
10	male	38	Moderate	B	No
11	male	48	Moderate	C	Yes
12	female	62	Moderate	C	No
13	male	44	Moderate	C	No
14	female	76	Moderate	B	No
15	female	62	Moderate	A	Yes
16	male	66	Moderate	B	Yes
17	male	73	Moderate	B	No
18	female	49	Moderate to Poor	B	No
19	male	55	Moderate	C	No
20	female	75	Moderate	B	Yes
21	male	61	Moderate	C	No
22	female	39	Mucinous	C	Yes
23	male	71	Moderate	B	No
24	male	72	Moderate	C	Yes
25	male	74	Moderate	B	No
26	male	86	Poor	C	No

27	female	70	Moderate to Poor	B	Yes
28	male	64	Moderate	B	No
29	male	69	Moderate	C	Yes
30	female	51	Moderate	C	No
31	female	72	Moderate	B	NA
32	male	69	Moderate to Poor	C	NA
33	male	48	Moderate	C	NA

**Supplementary Table 2. Survival of mice-bearing derived from different cell subpopulation and treated with drugs therapy**

Cell populations	Drugs	Media survival(%)	Survival at 90 d(%)	Survival at 120 d(%)	<i>P</i> value
CD44+CD54+	Cetuximab	86	50	0	0.748
	FolFox	73.5	16.67	0	0.824
	FolFox+Cetuximab	77	0	0	0.207
	control	80	40	0	-
CD44+CD54-	Cetuximab	90.5	50	NA	0.012
	FolFox	92.5	66.67	NA	0.001
	FolFox+Cetuximab	83.5	33.33	NA	0.067
	control	73.5	0	NA	-
Caco-2	Cetuximab	Underdefined *	100	66.67	0.003
	FolFox	Underdefined *	100	83.33	0.003
	FolFox+Cetuximab	Underdefined *	100	83.33	0.003
	Control	80	20	0	-

NA, Not assessed