

Supplementary Table 1 Clinicopathological data of colorectal cancer patients

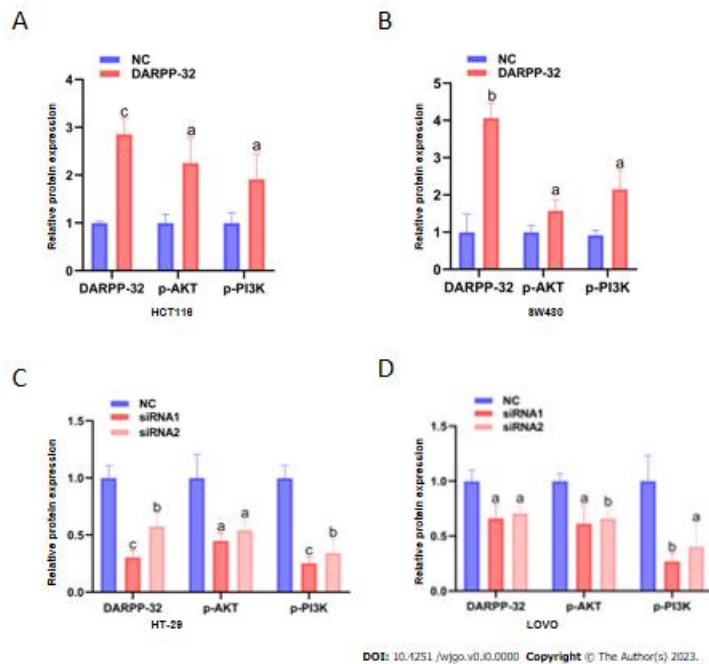
Patient ID	Clinical diagnosis	Gender	Age	Tumor size (cm)	TNM	Carbohydrate antigen 199 (reference range 0-27 U/mL)	Carcinoembryonic antigen (reference range 0.2-10.0 ng/mL)
1971473	Rectal cancer	Male	73	6.5	pT3N1M0 III	12.4	5.6
1973685	Sigmoid colon cancer	Male	59	2.2	pT4N1M0 III	3.2	2.3
1963907	Rectal cancer	Female	70	2	pT4aN1aM0 III	25	4.6
2014978	Rectal cancer	Male	70	5.5	pT2N2M0 III	18	5.3
1976339	Right-sided colon cancer	Male	44	3	pT3N0M0 II	0.7	9.8
1975496	Rectal cancer	Male	84	3.5	pT4NIbM0 III	23	4.4
1976761	Rectal cancer	Female	53	5	pT3N2aM0 III	12.5	3.7
1980998	Rectal cancer	Male	81	4.5	pT4N0M1 IV	35.6	58.3
2019792	Left-sided colon cancer	Female	75	3	pT4N1M0 III	13.7	1.6
1981105	Sigmoid colon cancer	Male	78	3	pT4N0M1 IV	25.7	6.4
1944237	Left-sided colon cancer	Female	57	5	pT4N0M0 II	9	1.9
1960404	Rectal cancer	Male	55	2.5	pT4N1M0 III	8.3	1.2
1959336	Right-sided colon cancer	Male	67	5.5	pT4N1M0 III	69.7	4.3
1961947	Right-sided colon cancer	Female	71	4.5	pT3N1M0 III	7.0	1.5
1943112	Left-sided colon cancer	Female	52	4	pT4N0M0 II	30.2	5.1

	colon cancer						
1961427	Right-sided	Male	63	8	pT4N0M0 II	37.3	9.5
	colon cancer						
1908185	Sigmoid colon	Male	59	6	pT4N0M0 II	9.8	13.1
	cancer						
1970118	Rectal cancer	Male	71	3.5	pT4N1M0 III	15.1	2.7
1986421	Right-sided	Female	49	4	pT4N0M0 II	514.4	3.8
	colon cancer						
2006727	Rectal cancer	Female	54	2	pT2N1M0 III	21.3	2.3
2006082	Sigmoid colon	Female	67	4	pT2N0M0 I	10.2	17.2
	cancer						
2004533	Rectal cancer	Male	63	7	pT3N1M0 III	30.7	6.3
2003525	Left-sided	Male	57	3	pT4aN0M0 II	6.3	6.3
	colon cancer						
2001066	Rectal cancer	Male	69	5.5	pT4N0M1 IV	14.1	3.6
1990543	Right-sided	Female	67	3	pT4N0M0 II	14.7	1.8
	colon cancer						
2023823	Rectal cancer	Male	65	3.5	pT4N0M1 IV	0.6	3.5
2024204	Rectal cancer	Female	69	2.5	pT2N0M0 I	9.7	1.7
1742354	Rectal cancer	Female	76	2.5	pT2N1M0 III	4.51	2.01
2019806	Right-sided	Female	76	5.5	pT4N1M0 III	11.8	7.8
	colon cancer						
2030238	Left-sided	Female	78	5.5	pT4bN0M0 II	9.7	1
	colon cancer						
2035580	Left-sided	Male	71	6.5	pT2N0M0 I	1	2.4
	colon cancer						
2038772	Right-sided	Female	71	4	pT4N1M1 IV	44.4	2.4
	colon cancer						
2041456	Left-sided	Female	80	5.5	pT3N0M0 II	14.6	20.8
	colon cancer						
1938160	Right-sided	Female	87	7	pT4N0M1 IV	18.4	1.4

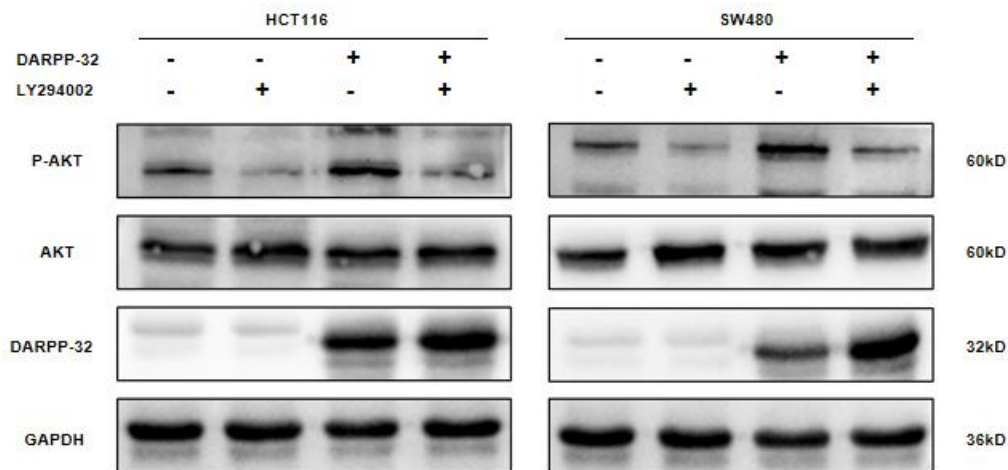
	colon cancer							
1936210	Sigmoid colon cancer	Female	76	2.5	pT4N1M0 III	11.2	21.5	
1942312	Rectal cancer	Male	78	3.5	pT4N0M0 II	7.3	3	
2055243	Rectal cancer	Female	72	4.5	pT4N0M0 II	13	3.1	
1945928	Right-sided colon cancer	Male	77	7	pT3N1M1 IV	93.5	15.5	
2048948	Right-sided colon cancer	Male	76	2.5	pT3N1M0 III	5.5	3.5	
2053235	Right-sided colon cancer	Male	60	4.5	pT4N1M0 III	103.2	2.5	
2061758	Rectal cancer	Male	64	4	pT4N3M0 III	89.9	1.3	
2063513	Right-sided colon cancer	Female	75	3.8	pT4N0M0 II	8.3	4.6	
1946696	Rectal cancer	Male	66	4	pT2N0M0 I	8	4.8	
1963072	Right-sided colon cancer	Female	58	4	pT4N0M0 II	24.5	12.8	
1992212	Right-sided colon cancer	Female	41	11.4	pT4N2M0 III	110.8	1.2	
1959135	Rectal cancer	Male	60	3.5	pT4N1M0 III	17.3	8.7	
1955707	Sigmoid colon cancer	Male	84	3	pT2N0M0 I	77	6.8	
1956985	Right-sided colon cancer	Male	50	4	pT1N0M0 I	19.3	2.8	
1930991	Right-sided colon cancer	Male	64	1.5	pT2N2M0 I	12.2	5.1	
1968697	Rectal cancer	Male	49	4	pT4N0M0 II	1.1	5.1	
1973846	Sigmoid colon cancer	Male	65	2.5	pT2N0M0 I	11.5	1.4	
1947069	Left-sided colon cancer	Female	49	4	pT3N2M1 III	2.2	66	

1942950	Rectal cancer	Male	59	4	pT3N0M0 II	10.1	3.7
1932066	Left-sided colon cancer	Female	78	4.5	pT4N3M0 III	46.1	22.4
1929942	Left-sided colon cancer	Female	50	7	pT4N1M0 III	2.3	20.2
1938079	Rectal cancer	Male	55	2.5	pT2N0M0 I	6.2	0.7
1957823	Rectal cancer	Male	85	4	pT3N1M0 III	16.7	2.6
1979003	Rectal cancer	Male	62	4	pT4N2M0 III	24.5	2.7
1942312	Rectal cancer	Male	78	3.5	pT4N0M0 II	7.3	3
1976795	Rectal cancer	Female	42	3.5	pT4N2M0 III	30.2	5.1
1991273	Sigmoid colon cancer	Male	69	3	pT4N1M0 III	11.8	2.6
1939528	Sigmoid colon cancer	Male	64	3.2	pT3N0M0 II	7.4	1.2
1932574	Rectal cancer	Male	78	5	pT3N0M0 II	12.2	6.7
1940255	Rectal cancer	Female	49	2	pT2N0M0 I	10.8	8.5
1987829	Rectal cancer	Female	87	5	pT3N1M0 II	18.6	7.7
1933910	Right-sided colon cancer	Male	63	5	pT4N2M0 III	75.6	18.5
1953173	Rectal cancer	Female	74	4	pT4N2M0 III	50.7	10.5
1992407	Right-sided colon cancer	Female	50	3.2	pT4N0M0 II	107.4	3.7
1958027	Right-sided colon cancer	Male	57	3.5	pT4N0M1 IV	17.3	6.4
1991799	Right-sided colon cancer	Male	54	5.5	pT3N0M0 II	33.7	9

TNM: Tumor-node-metastasis.



Supplementary Figure 1 Effect of dopamine and cyclic adenosine monophosphate regulated phosphoprotein with an apparent Mr of 32000 (DARPP-32) on progression is partially dependent on the phosphoinositide 3-kinase (PI3K)/AKT signaling pathway. A and B: DARPP-32 overexpressed levels of DARPP-32, p-AKT, and p-PI3K proteins in cells; C and D: DARPP-32 knockdown in cells resulted in decreased protein expression of DARPP-32, p-AKT, and p-PI3K. ^a*P* < 0.05, ^b*P* < 0.01, ^c*P* < 0.001. DARPP-32: Expression and clinical relevance of dopamine and cyclic adenosine monophosphate regulated phosphoprotein with an apparent Mr of 32000; NC: Normal control; PI3K: Phosphoinositide 3-kinase.



Supplementary Figure 2 Effect of Dopamine and cyclic adenosine monophosphate regulated phosphoprotein with an apparent Mr of 32000 (DARPP-32) on progression is partially dependent on the phosphoinositide 3-kinase /AKT signaling pathway. The expression of relevant proteins was evaluated in HCT116 and SW480 cell lines overexpressing DARPP-32 after treatment with the AKT inhibitor LY294002. DARPP-32: Expression and clinical relevance of dopamine and cyclic adenosine monophosphate regulated phosphoprotein with an apparent Mr of 32000; GAPDH: Glyceraldehyde-3-phosphate dehydrogenase.