

Table SI. Clinical characteristics of the patients with esophageal cancer.

Characteristics	No. of patients (%)
Total	57
Age, years	
Median (range)	61 (45,76)
$\leq 61$ , n (%)	28 (49.1)
$>61$ , n (%)	29 (50.9)
Sex, n (%)	
Male	49 (86.0)
Female	8 (14.0)
Differentiation grade, n (%)	
High differentiation	15 (26.3)
Medium differentiation	35 (61.4)
Low differentiation	7 (12.3)
Pathological tumor (T) stage, n (%)	
1	4 (7.0)
2	1 (19.3)
3	38 (66.7)
4	4 (7.0)
Pathological node (N) stage, n (%)	
0	31 (54.3)
1	14 (24.6)
2	9 (15.8)
3	3 (5.3)
Pathological metastasis (M) stage, n (%)	
0	57 (100.0)
Pathological TNM stage, n (%)	
I	9 (15.8)
II	20 (35.1)
III	24 (42.1)
IV	4 (7.0)
Pathological type, n (%)	
Esophageal squamous cell carcinoma	50(87.7)
Esophageal adenocarcinoma	5(8.8)
Esophageal adenosquamous cell carcinoma	2(3.5)
Survival state, n (%)	
Succumbed	22(38.6)
Survived	35(61.4)

Table SII. AI analysis of DPY30 protein expression in TMA of esophageal cancer.

Tissue type	Positive area, %	Mean density	Area density	H-Score
T	0.3854	0.0471	0.018144	42.539
P	0.3187	0.041	0.013081	35.8786
T	0.413	0.0543	0.022439	46.3691
P	0.2947	0.0378	0.011147	32.2073
T	0.4444	0.047	0.020887	47.9122
P	0.343	0.0556	0.019059	38.866
T	0.474	0.0547	0.025926	52.4108
P	0.2702	0.0411	0.011094	30.4317
T	0.3848	0.0495	0.019051	42.6277
P	0.2446	0.0462	0.011309	27.6573
T	0.2862	0.0647	0.018524	33.4523
P	0.142	0.0395	0.005607	15.6058
T	0.0826	0.0669	0.005526	10.3503
P	0.2042	0.0461	0.009417	23.4894
T	0.3872	0.0529	0.020481	41.7558
P	0.2541	0.0368	0.009347	27.5049
T	0.2585	0.0463	0.011967	28.326
P	0.314	0.0408	0.012811	34.3433
T	0.4696	0.0418	0.019608	50.3894
P	0.3475	0.0446	0.015502	38.5303
T	0.376	0.0584	0.021943	44.3986
P	0.3309	0.0444	0.014703	36.7334
T	0.3663	0.0611	0.022387	42.2128
P	0.2033	0.0442	0.008977	23.4293
T	0.2465	0.0998	0.024602	33.3077
P	0.1824	0.0502	0.009154	20.9214
T	0.3769	0.0648	0.024443	43.8693
P	0.3023	0.0431	0.013031	34.5381
T	0.252	0.0519	0.013087	28.571
P	0.2866	0.0424	0.012151	31.2165
T	0.2885	0.0684	0.019741	33.2679
P	0.3011	0.0356	0.010727	31.8936
T	0.2376	0.0665	0.015799	28.5712
P	0.3152	0.0412	0.012983	34.7035
T	0.3347	0.0705	0.023601	39.9262
P	0.2502	0.0339	0.008493	27.1206
T	0.454	0.0557	0.025311	51.5333
P	0.2304	0.0425	0.009792	26.5547
T	0.3429	0.063	0.021586	39.7073
P	0.2585	0.0449	0.011603	28.6109
T	0.1445	0.1243	0.017952	21.5693
P	0.2018	0.0469	0.009456	22.8624
T	0.2623	0.047	0.012316	31.1947
P	0.3013	0.0406	0.012221	33.8039
T	0.3119	0.0601	0.018729	35.5426
P	0.2341	0.0514	0.012032	26.4998

T	0.5322	0.042	0.022332	56.7132
P	0.2903	0.0428	0.012422	32.1084
T	0.4464	0.0367	0.016393	47.2665
P	0.2759	0.0455	0.012557	31.3647
T	0.4467	0.0508	0.022711	49.1607
P	0.2924	0.033	0.009635	31.3949
T	0.216	0.0749	0.016171	26.7438
P	0.2586	0.0406	0.010508	28.627
T	0.3206	0.0564	0.018072	36.3951
P	0.2369	0.0432	0.010226	26.303
T	0.5074	0.0528	0.026793	56.5077
P	0.2662	0.0403	0.01073	29.1268
T	0.2295	0.0643	0.014765	27.0576
P	0.2851	0.04	0.011416	31.4746
T	0.2879	0.0498	0.014327	32.6228
P	0.2872	0.0369	0.010608	31.2682
T	0.2575	0.0572	0.014717	29.853
P	0.2342	0.0451	0.010558	26.442
T	0.2117	0.0603	0.012763	25.263
P	0.3628	0.0437	0.015855	40.5699
T	0.3081	0.0439	0.013512	34.9928
P	0.2889	0.0446	0.012894	32.6441
T	0.2967	0.0607	0.01801	34.7842
P	0.2548	0.0447	0.011377	29.2809
T	0.3868	0.0378	0.014627	42.5063
P	0.3	0.0529	0.015881	35.4747
T	0.4019	0.0586	0.023538	45.2322
P	0.2249	0.05	0.011255	26.0041
T	0.2891	0.0667	0.019278	34.332
P	0.2658	0.0432	0.011479	29.9265
T	0.3924	0.0647	0.02538	45.7139
P	0.3767	0.0409	0.015418	42.3526
T	0.374	0.079	0.029537	43.4678
P	0.3126	0.0499	0.015581	37.0497
T	0.3563	0.0546	0.019467	40.1171
P	0.2889	0.043	0.012429	32.5749
T	0.3827	0.0763	0.029185	45.4942
P	0.2676	0.0492	0.013156	29.9545
T	0.4229	0.0456	0.019272	48.1276
P	0.3826	0.0535	0.020473	43.8612
T	0.4742	0.0501	0.023752	51.8198
P	0.2693	0.0423	0.01138	30.6437
T	0.3568	0.082	0.029278	44.1751
P	0.2997	0.0406	0.012158	33.7303
T	0.4002	0.0451	0.018042	45.3054
P	0.3694	0.0485	0.017922	42.882
T	0.5132	0.0565	0.029002	60.8372
P	0.2799	0.0544	0.015238	33.9043

T	0.4619	0.0524	0.024194	52.9486
P	0.2969	0.0495	0.014698	34.2683
T	0.3404	0.0596	0.020304	39.1342
P	0.2961	0.0435	0.012868	34.0111
T	0.348	0.0599	0.020834	41.4163
P	0.4264	0.0363	0.015474	47.438
T	0.4266	0.0548	0.023366	48.862
P	0.3669	0.0366	0.013427	40.8154
T	0.3701	0.0526	0.019483	43.5296
P	0.2982	0.05	0.014906	34.4923
T	0.4014	0.0492	0.019759	45.0017
P	0.435	0.0416	0.018092	49.055
T	0.37	0.0722	0.026726	45.6939
P	0.3995	0.0466	0.018622	45.06
T	0.219	0.0638	0.01398	26.7538
P	0.3447	0.0367	0.012647	38.8852
T	0.2312	0.0684	0.015807	30.6349
P	0.2475	0.0564	0.013968	29.4096
T	0.4386	0.072	0.03158	51.0303
P	0.3718	0.0473	0.017577	43.3015

T,tumor; P, paracancerous; TMA, tissue microarray; DPY30, dpy-30 homolog.