

Table S1. The tumor biomarkers immunohistochemical staining information.

Pathological signaling	Tumor markers	Antibody information	Dilutions
Migration & Invasion			
	E-Cadherin	Cell Signaling, # 4065	1:50
	N-Cadherin	Upstate, clone 13A9	1:200
	β -Catenin	Millipore, MAB2081	1:100
	Snail	Abcam, ab70983	1:50
	Twist	Santa Cruz, SC-102032	1:50
	c-Met	Santa Cruz, SC-161	1:200
	nm23	Santa Cruz, SC-56928	1:200
Apoptosis & autophagy			
	Beclin 1	Santa Cruz, SC-11427	1:200
	AKT 1	Cell Signaling, # 4685	1:100
	Bax	Santa Cruz, SC-7480	1:200
	Survivin	Santa Cruz, SC-47750	1:100
	Bcl-2	Santa Cruz, SC-7382	1:50
	Pontin	Cell Signaling, # 8959	1:100
Cell cycle			
	14-3-3 σ	Santa Cruz, SC-100638	1:200
	CENP-H	Santa Cruz, SC-22792	1:200
	Aurora-A	Upstate, # 04-1037	1:200
	Cyclin D1	Cell Signaling, # 2978	1:200
	CDC2	Santa Cruz, SC-53	1:200
	Ki-67	Santa Cruz, SC-23900	1:50
	ERK	Santa Cruz, SC-94	1:200
	P21	Santa Cruz, SC-817	1:200
	p-ERK	Santa Cruz, SC-7383	1:100
	P27	Millipore, clone Y236	1:200
	Stathmin	Cell Signaling, # 3352	1:200
Tumor microenvironment			
	MMP-2	Santa Cruz, SC-53630	1:200
	MMP-9	Santa Cruz, SC-6840	1:200
	TIMP-2	Santa Cruz, SC-21753	1:200
	COX2	Santa Cruz, SC-58344	1:200
	HIF-1 α	Millipore, MAB5382	1:200
Others			
	EZH2	Cell Signaling, # 4905	1:200
	LMP 1	Santa Cruz, SC-57721	1:200

Table S2. Variables according to the univariate analysis.

Variables	coef	exp(coef)	se(coef)	z	Pr(> z)	AUC	PH
Aurora-A	0.126952297	1.135362856	0.034739633	3.654393757	0.00025779	0.695999414	0.120069138
Bcl-2	0.077710275	1.080809476	0.031517552	2.465619004	0.013677673	0.612798912	0.50623835
Beclin 1	0.056136776	1.057742348	0.025556242	2.196597441	0.028049209	0.636282359	0.062936497
14-3-3 σ	-0.08503123	0.9184836	0.039311422	-2.163015895	0.030539957	0.613802692	0.989196149
VCA-IgA	0.000797407	1.000797725	0.000369849	2.1560321	0.031081159	0.58473763	0.748765652
P27	0.07253577	1.075231267	0.033884205	2.140695655	0.032298589	0.61159693	0.096584401
MMP-2	0.058657164	1.060411632	0.033265451	1.763305866	0.077848916	0.606163109	0.848132344
EA-IgA	0.003116134	1.003120994	0.001987462	1.567896015	0.116905402	0.540884174	0.633582755
HIF-1 α	0.041923286	1.042814477	0.027066378	1.548906379	0.121404227	0.524771482	0.300604781
Cyclin D1	0.047566342	1.048715772	0.030825595	1.543079434	0.122811504	0.592943608	0.922351721
CENP-H	0.058780189	1.060542097	0.040555166	1.449388466	0.147229128	0.581757404	0.50418346
WHO	-0.570517457	0.565232879	0.394528842	-1.446072878	0.148156762	0.532576621	0.294009859
Stathmin	0.044208125	1.045199864	0.030892589	1.43102684	0.152422523	0.586840557	0.336009655
Ki-67	0.041035076	1.04188865	0.029594225	1.386590675	0.165566613	0.582160389	0.936445138
MMP-9	-0.125617139	0.881952447	0.096484678	-1.301938731	0.192937331	0.577205436	0.969207908
Bax	0.052018255	1.053394972	0.041431892	1.255512438	0.209292796	0.539884464	0.984617222
Catenin	0.040191682	1.041010298	0.032968173	1.219105529	0.222804141	0.550701137	0.734862063
Snail	0.044370837	1.045369945	0.038534637	1.151453334	0.249545783	0.549324688	0.079516506
AER	0.749357182	2.115639609	0.650913724	1.151238873	0.249633977	0.608815493	0.803278031
VCA	0.28357752	1.327871813	0.261758479	1.08335562	0.278650606	0.57767948	0.859340164
c-Met	0.036634489	1.037313801	0.034201768	1.0711285	0.284111655	0.551064188	0.022733491
CDC2	0.046845596	1.047960187	0.044149034	1.061078618	0.288654174	0.576760498	0.400081029
T	0.20404802	1.226357041	0.219014489	0.931664481	0.351509948	0.565695116	0.0489483
E-cad	0.029689608	1.030134739	0.032179469	0.922625796	0.356202248	0.539178243	0.3782955
TIMP-2	0.034242389	1.034835409	0.040146954	0.852926213	0.393700224	0.566410604	0.183792262
nm23	-0.032785584	0.967746038	0.03998426	-0.819962266	0.412237618	0.545506814	0.54108377
COX2	0.025421656	1.025747542	0.035967986	0.706785653	0.479699692	0.555737658	0.90562872
EZH2	0.018201344	1.018367998	0.026502147	0.686787516	0.492216638	0.560714195	0.624061954
N	0.124201574	1.132244079	0.19082599	0.650862989	0.515134935	0.545974681	0.718619166
Sex	-0.22052534	0.802097313	0.351033259	-0.628217794	0.529861275	0.504969045	0.148784741
EA	0.13265644	1.141857634	0.218544439	0.606999841	0.543851018	0.543346754	0.883053055
p-ERK	-0.029786283	0.970652956	0.059617145	-0.499626125	0.617338359	0.509284634	0.76151811
N-Cad	0.017627393	1.017783673	0.038056113	0.463194792	0.643224749	0.54763044	0.712926442
Pontin	-0.023025211	0.977237847	0.057576589	-0.399905778	0.689225916	0.514998601	0.641838141
LMP 1	0.019041995	1.01922445	0.049949528	0.38122472	0.703036507	0.515161781	0.486878012
P21	0.01572032	1.015844534	0.042411561	0.370661196	0.710889896	0.497173681	0.791886242
Survivin	0.016101812	1.016232145	0.044898946	0.358623392	0.719876845	0.50183288	0.146531714
Age	0.004538182	1.004548495	0.015801468	0.287200022	0.773959169	0.502040192	0.564525845
Twist	0.01293119	1.01301516	0.046635178	0.277284034	0.781562018	0.523149952	0.266349058
staging	0.081765965	1.085201804	0.309165534	0.264473091	0.791415397	0.532454237	0.741040722
ERK	0.010706687	1.010764208	0.043764255	0.244644556	0.806731661	0.522089028	0.880874343
AKT 1	-0.009850149	0.990198205	0.044284307	-0.222429784	0.823979328	0.553976197	0.950659901

Abbreviation: AUC, area under curve.