

Table S1 Abbreviations for the name of cancers

Abbreviations	Full names
ACC	Adrenocortical carcinoma
BLCA	Bladder urothelial carcinoma
BRCA	Breast invasive carcinoma
CESC	Cervical squamous cell carcinoma and endocervical adenocarcinoma
CHOL	Cholangiocarcinoma
COAD	Colon adenocarcinoma
DLBC	Lymphoid neoplasm diffuse large b-cell lymphoma
ESCA	Esophageal carcinoma
GBM	Glioblastoma multiforme
HNSC	Head and neck squamous cell carcinoma
KICH	Kidney chromophobe
KIRC	Kidney renal clear cell carcinoma
KIRP	Kidney renal papillary cell carcinoma
LAML	Acute myeloid leukemia
LGG	Brain lower grade glioma
LUSC	Lung squamous cell carcinoma
LIHC	Liver hepatocellular carcinoma
LUAD	Lung adenocarcinoma
MESO	Mesothelioma
OV	Ovarian serous cystadenocarcinoma
PRAD	Prostate adenocarcinoma
PAAD	Pancreatic adenocarcinoma
PCPG	Pheochromocytoma and paraganglioma
READ	Rectum adenocarcinoma
STAD	Stomach adenocarcinoma
SARC	Sarcoma
SKCM	Skin cutaneous melanoma
TGCT	Testicular germ cell tumors
THCA	Thyroid carcinoma
THYM	Thymoma
UCEC	Uterine corpus endometrial carcinoma
UVM	Uveal melanoma
UCS	Uterine carcinosarcoma

Table S2 The expression status of ABCB family gene in pan-cancers

Gene	Less expressed	More expressed
<i>ABCB1</i>	BLCA, BRCA, COAD, HNSC, KICH, KIRC, LUAD, LUSC, READ	–
<i>TAP1</i>	–	BLCA, BRCA, CHOL, COAD, ESCA, GBM, HNSC, KIRC, LIHC, LUAD, PRAD, READ, STAD, THCA, UCEC
<i>TAP2</i>	KICH	BLCA, CHOL, COAD, ESCA, GBM, HNSC, KICH, KIRC, KIRP, LIHC, PAAD, READ, STAD
<i>ABCB4</i>	BLCA, CHOL, COAD, HNSC, KICH, LIHC	BRCA, GBM, KIRC, KIRP, LUAD, LUSC
<i>ABCB6</i>	KICH, THCA	COAD, ESCA, HNSC, KIRC, KIRP, LIHC, LUAD, LUSC, PRAD, READ, STAD, UCEC
<i>ABCB7</i>	BRCA, KIRP, UCEC	CHOL, COAD, GBM, KICH, KIRC, LIHC, LUAD, LUSC, STAD
<i>ABCB8</i>	KIRC, THCA	BLCA, BRCA, CHOL, COAD, ESCA, HNSC, KIRP, LIHC, LUAD, LUSC, PRAD, READ, STAD, THCA, UCEC
<i>ABCB9</i>	GBM, KIRC, PRAD	BLCA, BRCA, CHOL, ESCA, HNSC, KICH, KIRC, LIHC, LUAD, LUSC, READ, STAD, THCA, UCEC
<i>ABCB10</i>	KICH, KIRP, THCA, UCEC	BRCA, CHOL, ESCA, GBM, KIRC, LIHC, LUAD, LUSC, STAD

Table S3 Correlation analysis of the expression levels of ABCB family gene and prognosis by the Cox method in pan-cancers

Gene	Cancer	HR	HR.95L	HR.95H	p value	
<i>ABCB1</i>	SKCM	0.506332666	0.380835888	0.673184372	2.83E-06	
	KIRC	0.757179895	0.666890778	0.859693089	1.76E-05	
	HNSC	0.419286417	0.258552638	0.679943165	0.000425	
	PAAD	0.76118578	0.622652387	0.930541349	0.00776	
	MESO	0.718810699	0.542195927	0.952955923	0.021738	
	LUAD	0.679694991	0.467726812	0.987724607	0.042895	
<i>TAP1</i>	LGG	1.756764227	1.442467046	2.139543194	2.11E-08	
	SKCM	0.819058885	0.743928259	0.901777084	4.78E-05	
	PAAD	1.623012844	1.245608647	2.114765899	0.000335	
	UVM	1.485761762	1.182426037	1.866914245	0.000678	
	OV	0.860877575	0.775648288	0.955471972	0.004858	
	READ	0.590340328	0.405927656	0.858531557	0.005812	
	KIRP	1.621457085	1.079494157	2.435513951	0.019887	
	STAD	0.848342441	0.728477278	0.987930467	0.034327	
	LUAD	1.153245521	1.005538093	1.322650271	0.041456	
	THYM	2.178785654	1.028036917	4.617642468	0.042142	
	<i>TAP2</i>	SKCM	0.790009119	0.685577258	0.910348763	0.00112
		LUAD	1.275723095	1.055082157	1.542504916	0.011958
		LAML	1.512436042	1.0044652	2.277294207	0.047558
UVM		1.682400619	1.104321197	2.563087488	0.015438	
LGG		1.784730845	1.304538615	2.441678729	0.000292	
PAAD		1.845435753	1.320843087	2.578378274	0.00033	
ACC		1.850014973	1.103924268	3.100353438	0.019529	
<i>ABCB4</i>	KIRP	2.733970366	1.568825931	4.764450801	0.000387	
	LGG	3.782840051	2.432093711	5.883769524	3.56E-09	
	UVM	8.877375054	3.393019404	23.22644773	8.60E-06	
	KIRC	0.584743963	0.431750268	0.791952031	0.000526	
	ACC	1.34455089	1.110299426	1.628224832	0.002436	
	PAAD	0.317149307	0.14851189	0.677276972	0.003011	
	SKCM	0.833447926	0.721493978	0.962773725	0.013307	
	KICH	342.4169754	3.116445632	37622.79175	0.014931	
	HNSC	0.344914138	0.124749218	0.953639344	0.040223	
	SARC	0.648581076	0.423320933	0.993708035	0.046706	
<i>ABCB5</i>	THCA	9.379386829	1.032026439	85.24287165	0.046816	
	DLBC	2.095817042	1.007178845	4.361141119	0.047805	
	LGG	3722217.424	3380.97322	4.10E+09	2.30E-05	
	READ	877484.0544	133.0000867	5.79E+09	0.00229	
<i>ABCB6</i>	STAD	3.30141668	1.302204197	8.369925484	0.01186	
	ACC	4.759736206	2.607018129	8.69003882	3.78E-07	
<i>ABCB6</i>	KIRP	2.47334617	1.580995768	3.869359679	7.31E-05	
	LIHC	1.726669545	1.304538358	2.285396746	0.000134	
	UVM	5.310152265	2.160803111	13.04964665	0.000273	
	PAAD	0.424354355	2.12E-01	8.48E-01	0.015216	
	LGG	0.600161802	0.390097715	0.9233435	0.020189	
	SKCM	1.350347018	1.036480424	1.759258571	0.026052	
	KIRC	1.360396127	1.02E+00	1.82E+00	0.036844	
	COAD	1.613133478	1.020254083	2.550540751	0.040781	
KICH	6.183381897	1.00E+00	3.82E+01	0.049844		

Table S3 (continued)

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Gene	Cancer	HR	HR.95L	HR.95H	p value
ABCB7	KIRC	4.27E-01	3.10E-01	5.87E-01	1.69E-07
	LGG	2.804835156	1.686236748	4.665477884	7.11E-05
	MESO	0.400234169	0.233279458	0.686675934	0.000885
	GBM	0.478226102	0.270087979	0.846761882	0.011387
	ESCA	2.333591989	1.205520383	4.517262127	0.011917
	UCEC	1.64E+00	1.09E+00	2.47E+00	0.01764
	SARC	1.58252596	1.062509154	2.357051141	0.023929
	SKCM	0.762817077	0.600582109	0.968876503	0.026478
	BRCA	1.508454217	1.028011379	2.213432818	0.035626
ABCB8	UVM	8.091592972	2.937960138	22.28548849	5.23E-05
	KIRC	1.933627638	1.350551578	2.768436175	0.000317
	LGG	2.145793233	1.382050882	3.331591233	0.00067
	DLBC	0.027337909	0.002218313	0.336905229	0.00497
	HNSC	0.619868296	0.443558758	0.866258861	0.005098
	KIRP	0.366934101	0.181795501	0.740615879	0.005143
	PAAD	0.548069726	0.345630327	0.869080059	0.010573
	KICH	11.38994331	1.627728014	79.70054425	0.014256
	GBM	1.396919964	1.062294381	1.836953504	0.016734
	SKCM	1.261567992	1.000035126	1.591497897	0.049965
	ABCB9	KIRC	2.098469521	1.447242528	3.042734197
LGG		1.87E+00	1.23E+00	2.86E+00	0.003735
THYM		3.86768459	1.539484068	9.716881388	0.004003
KIRP		2.662616087	1.202310512	5.896583584	0.015772
PCPG		16.04910866	1.588531432	162.145919	0.018665
UVM		4.221433297	1.260967704	14.13239929	0.019486
DLBC		6.511585171	1.31522793	32.23832195	0.021692
BLCA		1.649441667	1.02243904	2.660948678	0.040276
ABCB10	KIRC	8.280304695	1.070303442	64.05981998	0.042862
	KIRC	0.583764941	0.43799616	0.778046789	0.000241
	PCPG	14.6519283	2.650409767	80.99841982	0.002089
	ACC	2.987619312	1.468152649	6.079660149	0.002534
	MESO	1.965655913	1.102767895	3.503732007	0.021924
ABCB11	LGG	6.781550297	2.159670495	21.29464867	0.001042
	KICH	1071118.999	81.06868827	14152145966	0.004133
	SKCM	0.001883742	8.21E-06	0.432314817	0.023677

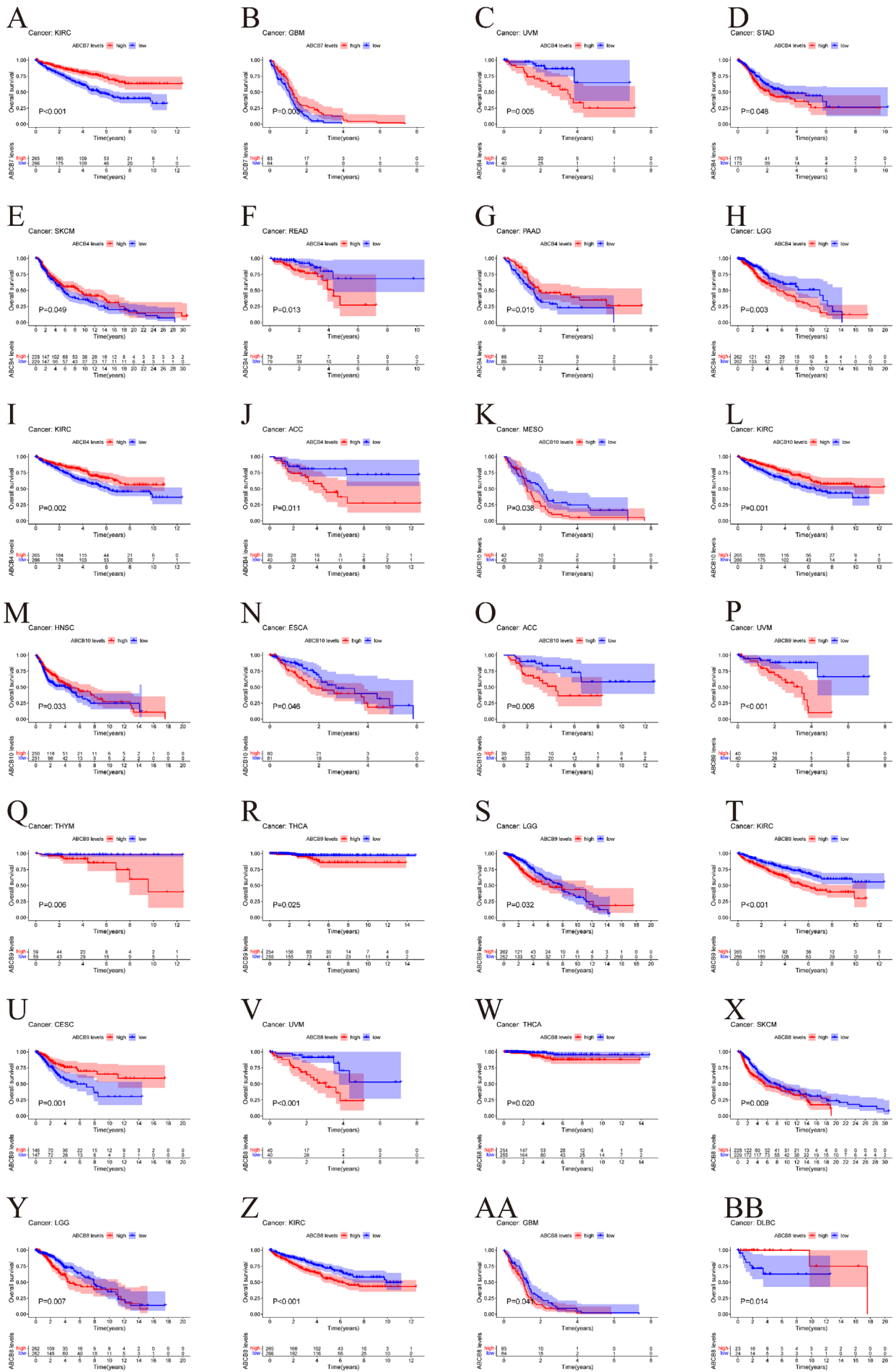


Figure S1 Correlation analysis of the expression levels of ABCB family gene and prognosis by Kaplan-Meier survival curves in pan-cancers. (A) KIRC (n=531); (B) GBM (n=167); (C) UVM (n=80); (D) STAD (n=350); (E) SKCM (n=457); (F) READ (n=158); (G) PAAD (n=177); (H) LGG (n=524); (I) KIRC (n=531); (J) ACC (n=79); (K) MESO (n=84); (L) KIRC (n=531); (M) HNSC (n=501); (N) ESCA (n=161); (O) ACC (n=79); (P) UVM (n=80); (Q) THYM (n=118); (R) THCA (n=509); (S) LGG (n=524); (T) KIRC (n=531); (U) CESC (n=293); (V) UVM (n=80); (W) THCA (n=509); (X) SKCM (n=457); (Y) LGG (n=524); (Z) KIRC (n=531); (AA) SKCM (n=167); (BB) DLBC (n=47).

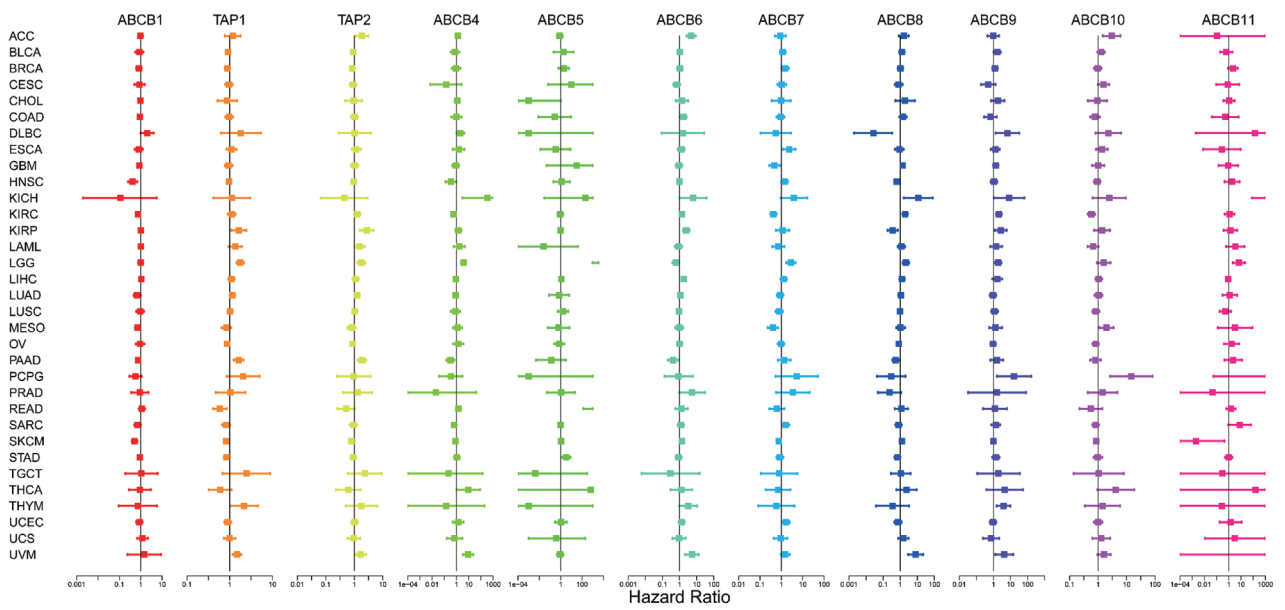


Figure S2 Correlation analysis of the expression levels of ABCB family gene and prognosis by the Cox method in pan-cancers. The lines of different colors represent the risk value of each gene in the corresponding cancer. hazard ratio <1 or hazard ratio >1 represents low or high risk respectively.

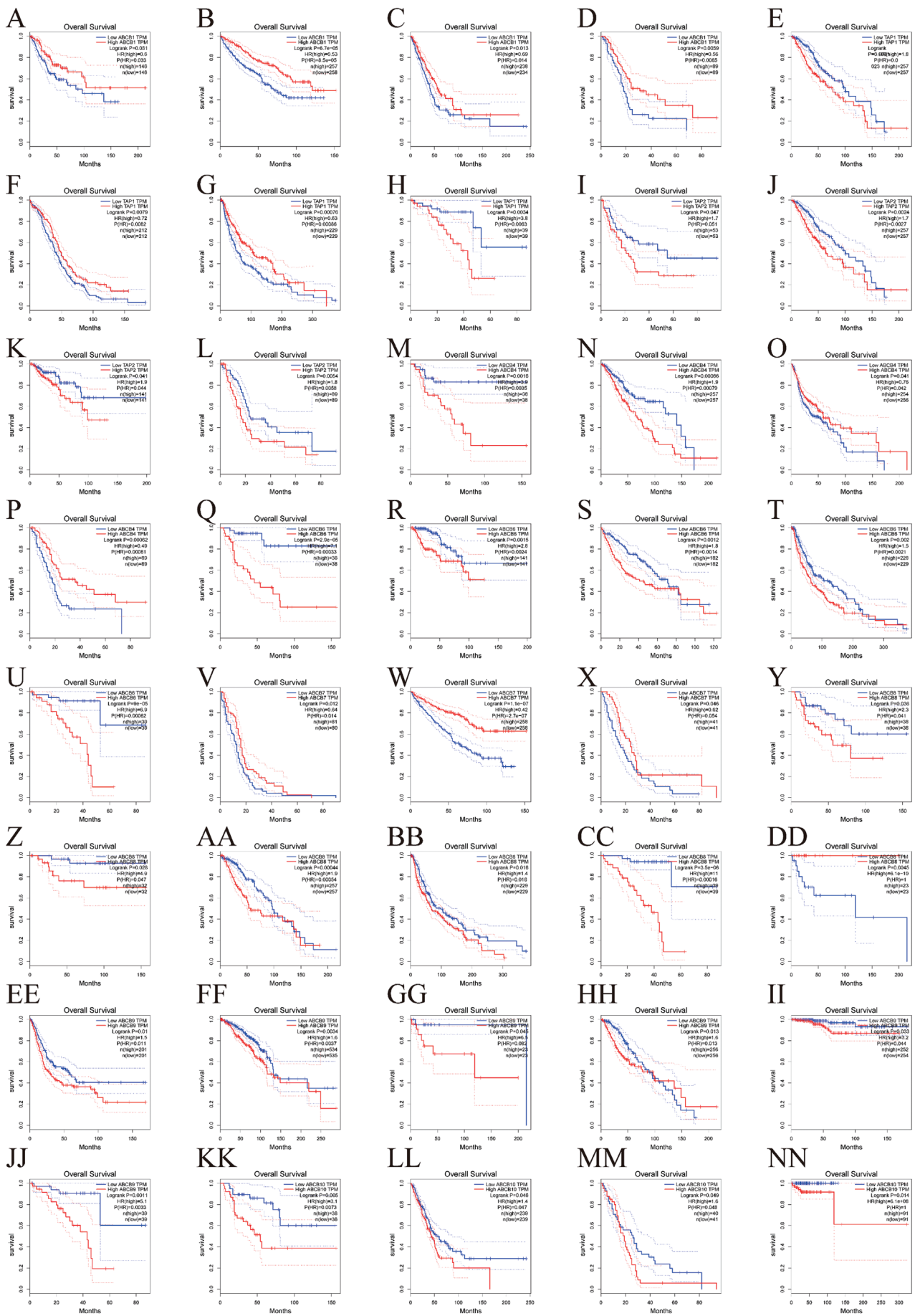


Figure S3 Correlation analysis of the expression levels of ABCB family gene and prognosis by GEPIA database in pan-cancers. (A) CESC in ABCB1, (B) KIRC in ABCB1, (C) LUAD in ABCB1, (D) PAAD in ABCB1, (E) LGG in TAP1, (F) OV in TAP1, (G) SKCM in TAP1, (H) UVM in TAP1, (I) LAML in TAP2, (J) LGG in TAP2, (K) KIRP in TAP2, (L) PAAD in TAP2, (M) ACC in ABCB4, (N) LGG in ABCB4, (O) HNSC in ABCB4, (P) PAAD in ABCB4, (Q) ACC in ABCB6, (R) KIRP in ABCB6, (S) LIHC in ABCB6, (T) SKCM in ABCB6, (U) UVM in ABCB6, (V) GBM in ABCB7, (W) KIRC in ABCB7, (X) MESO in ABCB7, (Y) ACC in ABCB8, (Z) KICH in ABCB8, (AA) LGG in ABCB8, (BB) SKCM in ABCB8, (CC) UVM in ABCB8, (DD) DLBC in ABCB8, (EE) BLCA in ABCB9, (FF) BRCA in ABCB9, (GG) DLBC in ABCB9, (HH) LGG in ABCB9, (II) THCA in ABCB9, (JJ) UVM in ABCB9, (KK) ACC in ABCB10, (LL) LUAD in ABCB10, (MM) MESO in ABCB10, (NN) PCPG in ABCB10.

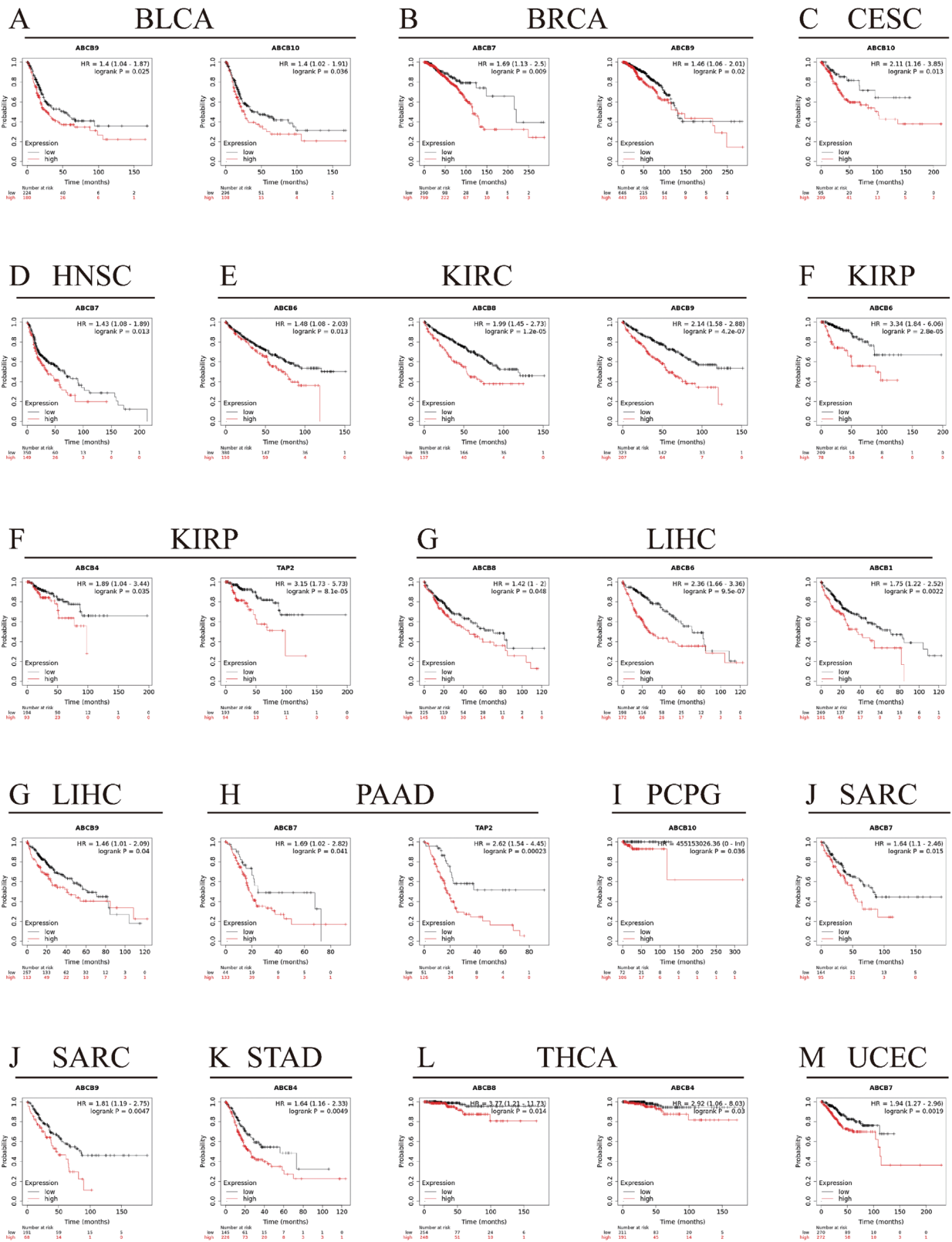


Figure S4 Correlation analysis of the expression levels of ABCB family gene and prognosis by Kaplan-Meier Plotter database in pan-cancers. (A) ABCB9, ABCB10 in BLCA; (B) ABCB7, ABCB9 in BRCA; (C) ABCB10 in CESC; (D) ABCB7 in HNSC; (E) ABCB6, ABCB8, ABCB9 in KIRC; (F) TAP2, ABCB4, ABCB6 in KIRP; (G) ABCB1, ABCB6, ABCB8, ABCB9 in LIHC; (H) TAP2, ABCB7 in PAAD; (I) ABCB10 in PCPG; (J) ABCB7, ABCB9 in SARC; (K) ABCB4 in STAD; (L) ABCB4, ABCB8 in THCA; (M) ABCB7 in UCEC.

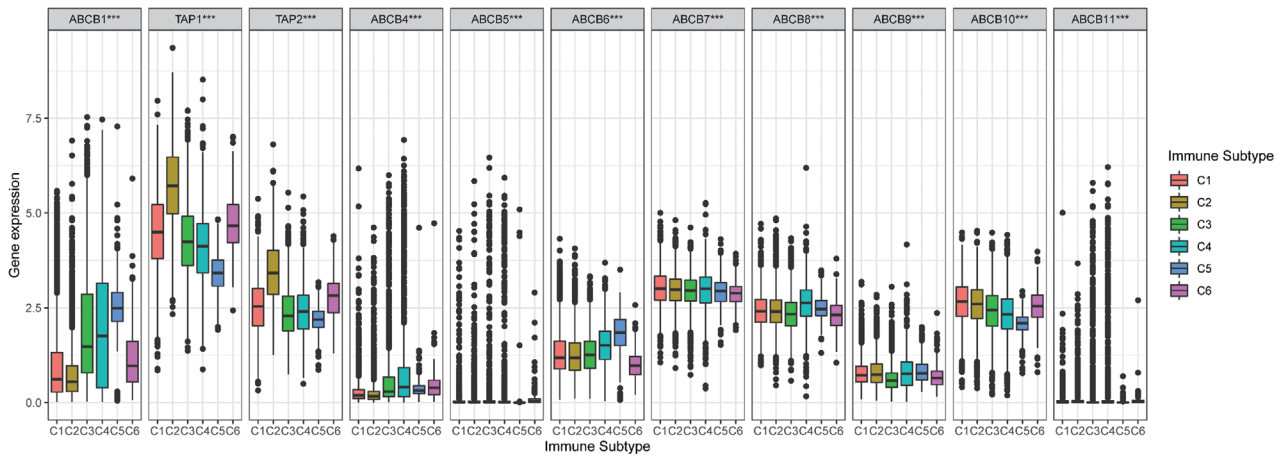


Figure S5 Correlation analysis of the expression levels of ABCB family gene and immune subtypes in pan-cancers. C1, wound healing; C2, IFN-g dominant; C3, inflammatory; C4, lymphocyte depleted; C5, immunologically quiet; C6, TGF-b dominant. *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$.