

## microRNA signature of childhood ALL

**Supplementary Table 1.** Four miRNAs associated with EFS were identified using the univariate Cox proportional hazards regression analysis

miRNA	Coefficient	Hazard ratio	95% Confidence interval	p-value
miR-129	0.325	1.38	1.09-1.75	0.007
miR-133a	0.409	1.51	1.16-1.95	0.002
miR-151	-0.266	0.77	0.63-0.93	0.007
miR-193a	-0.297	0.74	0.61-0.90	0.002

**Supplementary Table 2.** Comparison of the clinical characteristics between the original cohort (n=60, randomly split into the training and testing cohort) and validation cohort (n=103)

	Original cohort n (%)	Validation cohort n (%)	p-value
Onset age (years)			0.207
<10	47 (78.3)	70 (68.0)	
≥10	13 (21.7)	33 (32.0)	
Sex			0.198
Female	32 (53.3)	44 (42.7)	
Male	28 (46.7)	59 (57.3)	
Initial WBC (10 <sup>9</sup> /L)			0.565
<100	48 (80.0)	77 (74.8)	
≥100	12 (20.0)	26 (25.2)	
Cell type			0.424
B cell	50 (83.3)	79 (76.7)	
T cell	10 (16.7)	24 (23.3)	
Risk group			0.104
SR+HR	39 (65.0)	53 (51.5)	
VHR	21 (35.0)	50 (48.5)	
Genetic subtypes*			0.038
BCR-ABL1	1 (3.5)	3 (4.0)	
ETV6-RUNX1	8 (27.5)	13 (15.6)	
Hyperdiploidy	8 (27.5)	11 (14.9)	
DUX4	1 (3.5)	0 (0)	
ZNF384	1 (3.5)	2 (2.7)	
T-ALL	10 (34.5)	25 (33.8)	
Other	0 (0)	20 (27.0)	

\*A total of 31 and 29 samples had unknown subtype in the original cohort and validation cohort, respectively. WBC, white blood cells; SR, standard risk group; HR, high-risk group; VHR, very high-risk group.

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**Supplementary Table 3.** Adjusted hazard ratios of predictors in the prognostic model estimated using the multivariate Cox proportional hazards regression model for the training and testing cohort

Event-Free Survival Variables	Training group (n=40)				Testing group (n=20)			
	HR	95% CI		p-value	HR	95% CI		p-value
High risk-score group	10.61	1.24	90.97	0.031	40.42	1.51	1.08E+03	0.028
Initial WBC ≥100	1.36	0.14	12.95	0.788	13.82	1.44	1.32E+02	0.023
T cell	0.72	0.10	5.02	0.736	0.04	0.00	2.51	0.129
Male	0.80	0.18	3.52	0.772	0.11	0.01	1.99	0.136
Age ≥10	6.21	1.26	30.54	0.025	82.43	1.24	5.47E+03	0.039
VHR	0.64	0.13	3.13	0.580	5.13	0.62	42.19	0.128
Overall Survival Variables	Training group (n=40)				Testing group (n=20)			
	HR	95% CI		p-value	HR	95% CI		p-value
High risk-score group	1.13E+08	0.00		0.995	7.39	0.37	1.49E+02	0.192
Initial WBC ≥100	1.84	0.18	18.69	0.606	8.32	0.43	1.61E+02	0.161
T cell	0.48	0.05	4.27	0.507	2.16E+05	0.00		0.997
Male	1.01	0.18	5.59	0.994	0.52	0.03	8.22	0.644
Age ≥10	11.84	1.77	79.34	0.011	0.00	0.00		0.997
VHR	0.66	0.11	3.90	0.650	2.39	0.18	32.09	0.512

WBC, white blood cells.

**Supplementary Table 4.** Prediction power of the risk score model

Cohort	EFS		OS	
	Harrell's C-index	95% CI	Harrell's C-index	95% CI
Training (n=40)	0.80	0.65-0.94	0.89	0.82-0.97
Testing (n=20)	0.89	0.79-0.99	0.89	0.75-1.00
Validation (n=103)	0.70	0.62-0.78	0.72	0.63-0.81