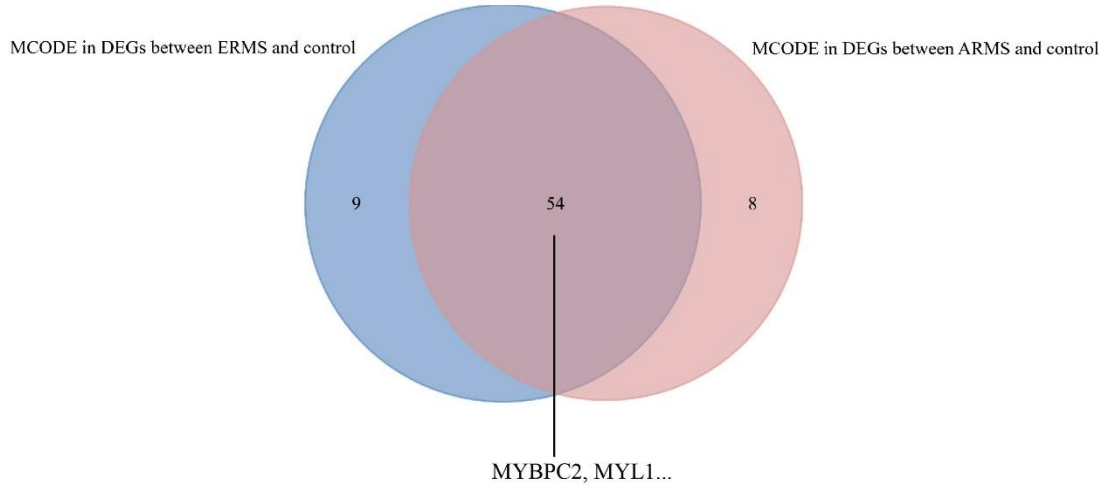
Supplementary material 1: Overlapping of MCODE module genes in DEGs of 8 Endothelial Rhabdomyosarcoma (ERMS) vs 6 control samples and 10 Alveolar Rhabdomyosarcoma (ARMS) vs 6 control samples. A total of 707 DEGs were identified between 8 ERMS and 6 control samples with cutoff: $p<0.05$, $|logFC|>2$. A total of 544 DEGs were identified between 10 ARMS and 6 control samples with cutoff: $p<0.05$, $|logFC|>2$. Protein-protein interaction (PPI) network was Constructed respectively. MCODE module genes were obtained respectively. MYBPC2 and MYL1 were included in the two MCODE genes. It suggested that MYBPC2 and MYL1 may be associated with the pathogenesis of ERMS and ARMS.



Supplementary material 2: Preliminarily functional study explorations of MYBPC2 and MYL1.

Part of our preliminarily functional study explorations were obtained from GenomeRNAi (http://www.genomernai.org/v17/genedetails/4632; Schmidt et al. (2012)). The MYBPC2 and MYL1 mainly participated in the progress of cell division. In future study, we will expand the sample size and further explore the mechanism. (A) MYBPC2, (B) MYL1.

(A)

Screen Title	Gene Ids[?]	Gene Symbols	Reagent Ids [?]	Score [?]	Phenotype [?]	Comments
Cell division (1)	ENSG00000086967	MYBPC2	ENSG00000086967	sp	Increased G1 DNA content	G0/1 [...]
Cell division (2)	ENSG00000086967	MYBPC2	ENSG00000086967_2	sp	none	
Cell division (3)	ENSG00000086967	MYBPC2	ENSG00000086967	-1.80 [..] 	none	
Cell division (4)	ENSG00000086967	MYBPC2	ENSG00000086967	0.60 [..] 	none	

(B)

Screen Title	Gene Ids[?]	Gene Symbols	Reagent Ids [?]	Score [?]	Phenotype [?]	Comments
Cell division (1)	ENSG00000168530	MYL1	ENSG00000168530	sp	Increased G1 DNA content	secondary [...]
Ciliogenesis and cilium length (1)	4632	MYL1	35906	-7.70 [..] 	none	
Ciliogenesis and cilium length (1)	4632	MYL1	35906	43.68 [..] 	none	
Ciliogenesis and cilium length (1)	4632	MYL1	118413	-95.87 [..] 	none	