

**Table S5.** Kaplan-Meier survival analysis and mean survival times of patients with primary melanomas that show low and high mRNA expression of the top short survival marker genes in an independent RNA sequencing data set (GSE98394).

<b>Gene</b>		<b>Mean survival time (months <math>\pm</math> SE)</b>	<b>Log rank test p-value</b>
<i>CNP</i>	Low mRNA expression	102.2 $\pm$ 7.3	0.03
	High mRNA expression	75.4 $\pm$ 9.7	
<i>P4HA1</i>	Low mRNA expression	113.5 $\pm$ 4.8	<0.001
	High mRNA expression	64.0 $\pm$ 9.2	
<i>RHOC</i>	Low mRNA expression	114.2 $\pm$ 4.2	<0.001
	High mRNA expression	63.2 $\pm$ 9.3	
<i>SORT1</i>	Low mRNA expression	110.0 $\pm$ 5.5	<0.001
	High mRNA expression	67.5 $\pm$ 9.6	
<i>CD63</i>	Low mRNA expression	113.7 $\pm$ 4.6	<0.001
	High mRNA expression	63.8 $\pm$ 9.3	
<i>CDK2AP1</i>	Low mRNA expression	112.3 $\pm$ 4.5	<0.001
	High mRNA expression	65.3 $\pm$ 9.7	
<i>BIRC7</i>	Low mRNA expression	107.6 $\pm$ 6.2	0.004
	High mRNA expression	69.6 $\pm$ 9.6	
<i>BIN3</i>	Low mRNA expression	106.0 $\pm$ 6.6	0.005
	High mRNA expression	71.5 $\pm$ 9.7	
<i>ARHGEF40</i>	Low mRNA expression	104.1 $\pm$ 6.7	0.025
	High mRNA expression	73.4 $\pm$ 9.9	
<i>SHC1</i>	Low mRNA expression	105.6 $\pm$ 6.8	0.006
	High mRNA expression	72.0 $\pm$ 9.6	
<i>FN1</i>	Low mRNA expression	107.7 $\pm$ 6.6	0.001
	High mRNA expression	69.8 $\pm$ 9.4	
<i>TLNRD1</i>	Low mRNA expression	105.0 $\pm$ 6.5	0.022
	High mRNA expression	72.0 $\pm$ 9.8	
<i>ARPC1B</i>	Low mRNA expression	110.7 $\pm$ 6.4	<0.001 <sup>†</sup>
	High mRNA expression	66.9 $\pm$ 8.9	
<i>PSMB4</i>	Low mRNA expression	113.5 $\pm$ 5.3	<0.001 <sup>†</sup>
	High mRNA expression	63.7 $\pm$ 8.9	
<i>FKBP11</i>	Low mRNA expression	107.5 $\pm$ 6.7	0.001
	High mRNA expression	70.0 $\pm$ 9.3	
<i>COL9A3</i>	Low mRNA expression	107.5 $\pm$ 6.0	0.004
	High mRNA expression	70.0 $\pm$ 9.8	
<i>GNG5</i>	Low mRNA expression	103.8 $\pm$ 6.9	0.024
	High mRNA expression	73.7 $\pm$ 9.8	
<i>ETV5</i>	Low mRNA expression	101.3 $\pm$ 7.7	0.039
	High mRNA expression	76.2 $\pm$ 9.5	
<i>TYR</i>	Low mRNA expression	109.0 $\pm$ 5.9	0.001
	High mRNA expression	68.4 $\pm$ 9.5	
<i>SOX10</i>	Low mRNA expression	101.6 $\pm$ 7.5	0.034
	High mRNA expression	75.9 $\pm$ 9.6	
<i>PSRC1</i>	Low mRNA expression	104.5 $\pm$ 6.7	0.029
	High mRNA expression	73.1 $\pm$ 9.8	
<i>DUSP4</i>	Low mRNA expression	110.4 $\pm$ 5.4	0.001
	High mRNA expression	67.2 $\pm$ 9.6	
<i>BACE2</i>	Low mRNA expression	105.5 $\pm$ 6.9	0.007
	High mRNA expression	72.1 $\pm$ 9.5	

<sup>†</sup>curves cross