

**Table S6.** Model selection among one linear model and two non-linear models on the relationship between disease index and expression levels of *RKS1* in RIL parental lines, mutant line, HIFs, complemented or silenced lines (see legend of Figure 4D). For each ‘disease index \* *RKS1* gene expression \* leaf’ combination, different letters indicate different fits among the three models, with the lowest values indicating a better model fit.

disease index	<i>RKS1</i> gene expression	leaf	Im			exp			log		
			n	k	AIC	BIC	AICc	AIC	BIC	AICc	AIC
											BIC
7dpi	<i>RKS1-L</i>	healthy	13	2	24.54 <sup>a</sup>	26.24 <sup>a</sup>	25.74 <sup>a</sup>	18.09 <sup>b</sup>	19.78 <sup>b</sup>	19.29 <sup>b</sup>	13.22 <sup>c</sup>
		infected	13	2	19.45 <sup>a</sup>	21.15 <sup>a</sup>	20.65 <sup>a</sup>	11.49 <sup>b</sup>	13.18 <sup>b</sup>	12.69 <sup>b</sup>	8.27 <sup>c</sup>
	<i>RKS1-L+S</i>	healthy	13	2	36.33 <sup>a</sup>	38.03 <sup>a</sup>	37.53 <sup>a</sup>	36.26 <sup>a</sup>	37.96 <sup>a</sup>	37.46 <sup>a</sup>	35.93 <sup>a</sup>
		infected	13	2	34.84 <sup>a</sup>	36.53 <sup>a</sup>	36.04 <sup>a</sup>	34.80 <sup>a</sup>	36.50 <sup>a</sup>	36.00 <sup>a</sup>	34.48 <sup>a</sup>
10dpi	<i>RKS1-L</i>	healthy	13	2	29.23 <sup>a</sup>	30.92 <sup>a</sup>	30.43 <sup>a</sup>	26.16 <sup>b</sup>	27.85 <sup>b</sup>	27.36 <sup>b</sup>	25.29 <sup>b</sup>
		infected	13	2	19.39 <sup>a</sup>	21.09 <sup>a</sup>	20.59 <sup>a</sup>	17.13 <sup>a</sup>	18.82 <sup>a</sup>	18.33 <sup>a</sup>	23.57 <sup>b</sup>
	<i>RKS1-L+S</i>	healthy	13	2	41.60 <sup>a</sup>	43.29 <sup>a</sup>	42.80 <sup>a</sup>	41.25 <sup>a</sup>	42.95 <sup>a</sup>	42.45 <sup>a</sup>	40.20 <sup>a</sup>
		infected	13	2	38.86 <sup>a</sup>	40.56 <sup>a</sup>	40.06 <sup>a</sup>	38.47 <sup>a</sup>	40.16 <sup>a</sup>	39.67 <sup>a</sup>	37.62 <sup>a</sup>

Im: linear model (disease ~ intercept + a\*expression); exp: exponential function (disease ~ Ae<sup>-k\*expression</sup>); log: logarithmic function (disease ~ b\*log(expression) + c). ‘n’ and ‘k’ denote the sample size and the number of parameters, respectively. AIC: Akaike’s information criterion; BIC: Bayesian information criterion; AICc: corrected AICc.

expression: ‘*RKS1-L*’: Relative gene expression (A.U.) of the *RKS1* long transcript; ‘*RKS1-L+S*’: Relative gene expression (A.U.) of *RKS1* total mRNA.