

1 Supplementary Information

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4 **Cooperation of regulatory RNA and the RNA degradosome in**  
5 **transcript surveillance**

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26 **Supplementary Table**

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28 **Supplementary Table 1.** Thermodynamic parameters for the binding of seed regions of MicC  
29 and its variants to the complementary target sequence in *ompD* from isothermal titration  
30 calorimetry.

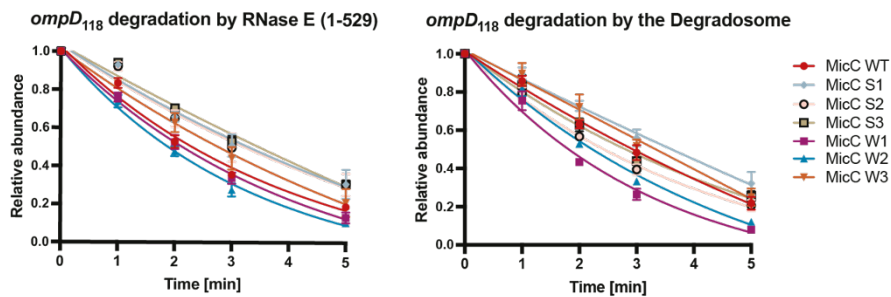
MicC variant	$\Delta H$ (kcal/mol)	$\Delta G$	$\Delta S$	Kd (M)	n
12mer W1	-59.47	-10.51	-161.5	$2.15 \cdot 10^{-8}$	1.1
12mer W2	-42.18	-9.59	-107.5	$1.46 \cdot 10^{-7}$	1.1
12mer W3	-26.40	-9.60	-55.4	$1.19 \cdot 10^{-7}$	1.2
<b>12mer wt</b>	<b>-61.29</b>	<b>-10.21</b>	<b>-168.5</b>	<b><math>3.59 \cdot 10^{-8}</math></b>	<b>0.9</b>
12mer S1	-53.54	-11.55	-138.5	$5.26 \cdot 10^{-9}$	1.0
12mer S2	-68.46	-11.92	-186.5	$2.76 \cdot 10^{-9}$	0.9
12mer S3	-62.76	-12.44	-166.0	$1.56 \cdot 10^{-9}$	0.9

1 **Supplementary Figures**

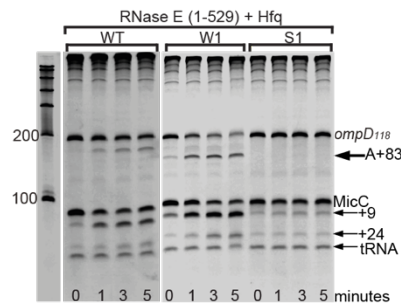
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3 **Supplementary Figure 1. Degradation of *ompD*<sub>118</sub>-PIC by RNase E.** (A) Quantification of  
 4 the degradation of 200 nM *ompD*<sub>118</sub> in the presence of different 200 nM MicC variants (WT  
 5 and mutants W1, W2, W3, S1, S2, S3) and 200 nM Hfq by 200 nM RNase E (1-529) (left  
 6 panel) and 50 nM full degradosome (right panel). The same reactions were performed using  
 7 *ompD*<sub>118</sub>-PIC as a substrate for RNase E (1-529) (B), RNase E (1-850)/RhIB/Enolase (C) and  
 8 full degradosome (D). The activity of a recombinant degradosome preparation comprising  
 9 RNase E 1-850, RhIB and enolase, and which is free of PNPase, shows stronger relative  
 10 activity compared with the isolated catalytic domain of RNase E; however, it is not as efficient  
 11 as the whole degradosome.

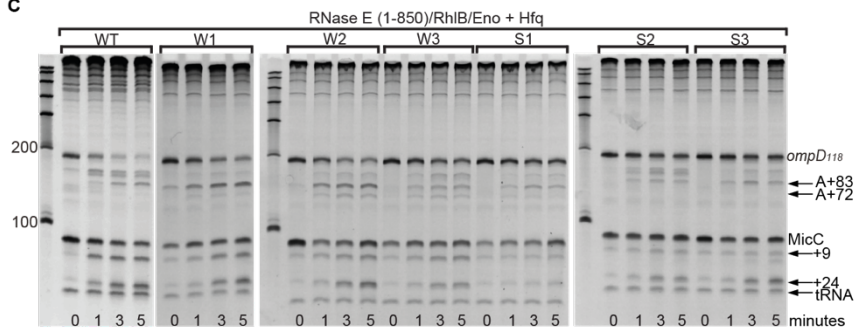
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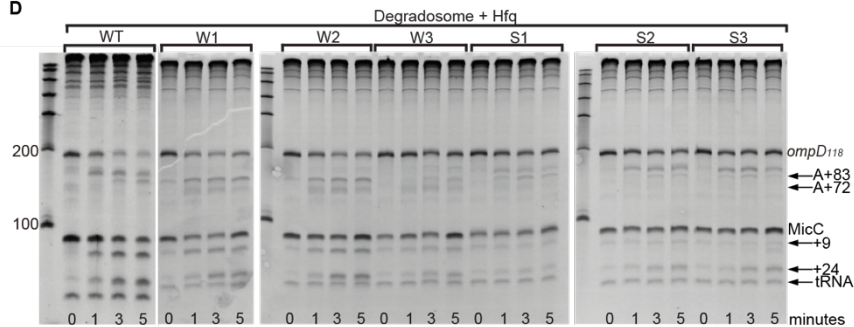
B



C



D

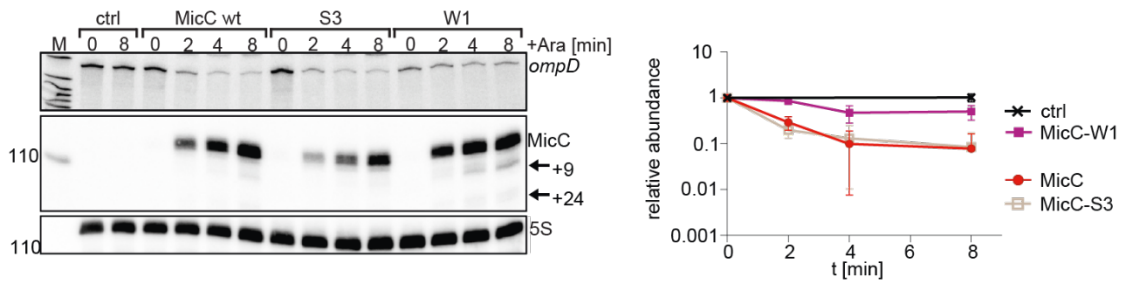


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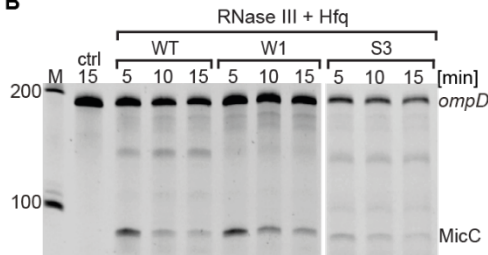
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**Supplementary Figure 2.** The influence of RNase III and MicC seed strength on *ompD* degradation *in vivo* (A) and *in vitro* (B). (A) Northern blot for MicC WT and mutants MicC-S3 and MicC-W1 in cell extracts upon expression from an inducible P<sub>BAD</sub> promoter or a control plasmid in *Salmonella* strain that is deficient for RNase III (*rnc*). Samples were obtained before and 2, 4, and 8 minutes after addition of L-arabinose. Processed RNA species are indicated by arrows. Probing for 5S rRNA serves as loading control. A plot of the relative abundance of *ompD* full-length species at indicated time-points represents the average result and the standard deviation of three biological replicates. (B) *ompD* degradation by RNase III in the presence and absence of MicC WT and mutants. The same amount of RNA (200 nM) was used in each reaction.

A



B



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