

Figure S1. The different growth conditions for *E. coli* w3110 Δ *pabB*. (A) Growth curves of *E. coli* w3110 Δ *pabB* in E minimum medium supplemented with different concentrations of *pABA*. (B) Growth curves of *E. coli* W3110 and *E. coli* W3110 Δ *pabB* in the presence or absence of *pABA* in 7H9 medium supplemented with 10% OADC. Growth of the bacteria at 37 °C was measured by taking OD₆₀₀ every 12 hours using the SynergyH1 Hybrid reader (BioTek, USA). Data represent mean \pm SD from three biological replicates.

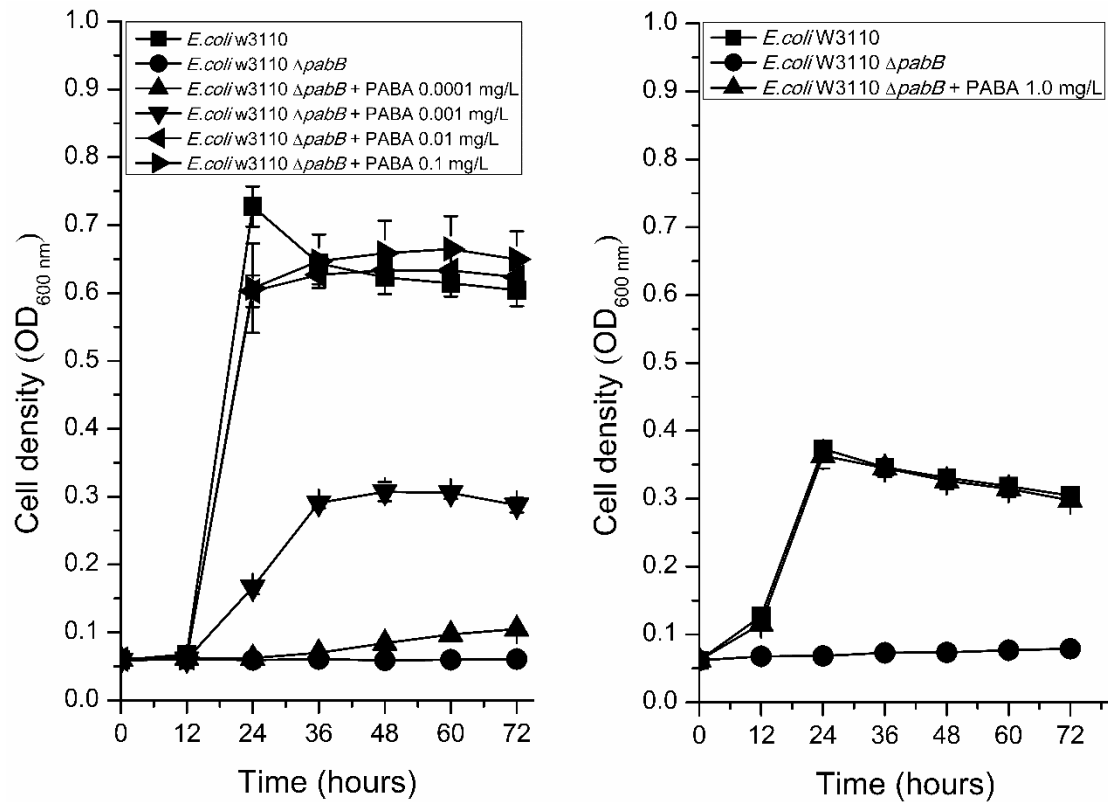


Figure S2. Growth of H37Ra and H37Ra $\Delta pabC$ on 7H10 solid medium in the presence of different concentrations of *pABA*. About 10^5 cfus of bacteria was dropped onto the solid medium and cultured for 14~21 days at 37 °C. Experiments were replicated three times, and representative results are shown.

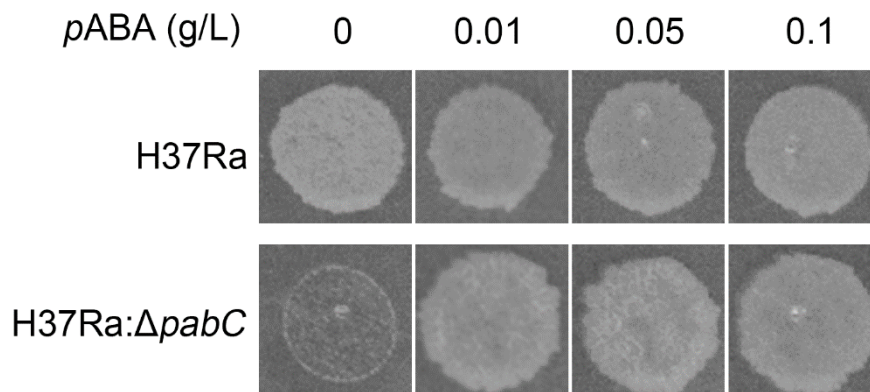


Figure S3. Comparison of the expressional level of ThyX during the exponential phase in H37Ra, H37Ra $\Delta sigB$, and H37Ra $\Delta sigB$ pMV261::*sigB* by Western blot assay. Lane 1, anti- ThyX immunoblotted to the total protein of H37Ra $\Delta sigB$. Lane 2, anti-ThyX immunoblotted to the total protein of H37Ra $\Delta sigB$. Lane 3, anti- ThyX immunoblotted to the total protein of H37Ra $\Delta sigB$ pMV261::*sigB*. Experiments were replicated three times, and representative results are shown.

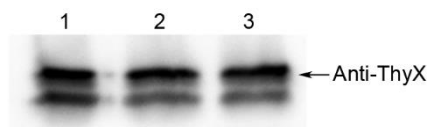


Table S3 Plasmids, strains and primers used in this study

Category	Name	Relevant Features/Sequences	Source
Plasmids			
	pMV261	expression plasmid in <i>M.tb</i> , Km ^R	Lab Stock
	pET21a:: <i>pabB</i>	<i>pabB</i> expression plasmid, Ap ^R	This Study
	pMV261:: <i>sigB</i>	<i>sigB</i> expression plasmid in <i>M.tb</i> , Km ^R	This Study
Strains			
	H37Ra	<i>M. tb</i> H37Ra	Lab Stock
	mc ² 155	<i>M. smegmatis</i> mc ² 155	Lab Stock
	H37Ra Δ <i>sigB</i>	Specialized transduction of strain H37Ra with phAES <i>sigB</i> _{Ra}	This Study
	H37Ra Δ <i>sigB</i> pMV261:: <i>sigB</i>	H37Ra Δ <i>sigB</i> transformed with pMV261:: <i>sigB</i>	This Study
	<i>E. coli</i> W3110 Δ <i>pabB</i>	<i>pabB</i> gene deleted in <i>E. coli</i> W3110	Lab Construct
	H37Ra Δ <i>pabC</i>	Specialized transduction of strain H37Ra with phAES <i>PabC</i> _{Ra}	This Study
	<i>E.coli</i> BL21 pET21a:: <i>pabB</i>	<i>E.coli</i> BL21 transformed with pET21a:: <i>pabB</i>	This Study
Primers			
	<i>sigB</i> koLFP	<u>TTTTTTTTCCATAAATTGGGCGTCTGGTAC</u> <u>GTTCAATCGTCTGG</u>	This Study
	<i>sigB</i> koLRP	<u>TTTTTTTTCCATTTCTTGGGTGGTGGCCC</u> <u>TTGTGGGTGCATCGG</u>	This Study
	<i>sigB</i> koRFP	<u>TTTTTTTTCCATAGATTGGGCGGGCGGAT</u> <u>CGGCTGCGGTCTGTAC</u>	This Study
	<i>sigB</i> koRRP	<u>TTTTTTTTCCATCTTTGGGGTGC GGTT</u> <u>AGCTCAGACTTTCTCG</u>	This Study
	<i>sigB</i> LYZ	GGGTAACGGGAAACACCTCGCCAC	This Study
	<i>sigB</i> RYZ	CGGCTACCAACGGGCTGAACAAC	This Study
	<i>pabC</i> koLFP	<u>TTTTTTTTCCATAAATTGGCACCGTTCCC</u> <u>AGTCGTCCCAC</u>	This Study
	<i>pabC</i> koLRP	<u>TTTTTTTTCCATTTCTTGG</u> <u>CACCGTCAAGCGTGACCACC</u>	This Study
	<i>pabC</i> koRFP	<u>TTTTTTTTCCATAGATTGGCGCTATTGTCA</u> <u>GCGACCGGTG</u>	This Study
	<i>pabC</i> koRRP	<u>TTTTTTTTCCATCTTTGG</u> <u>CGCCGCGCCCGGATCCTGGAC</u>	This Study
	<i>pabC</i> LYZ	AGACCCCGTTTGAGCAGGGCCAGTG	This Study
	<i>pabC</i> RYZ	GTGCTCTGGACCCAAGCAAGGACTGAC	This Study
	<i>MpabB</i> -L	GGAATTCCAT <u>ATGAACTTAGCGTGGGAG</u> <u>CTTAGC</u>	This Study
	<i>MpabB</i> -R	ATAAGAATGCGGCCGCCGCACTTTGCT <u>GGCTAACCG</u>	This Study
	<i>sigB</i> -L	CATGCCATGGTA <u>ATGGCCGATGCACCCA</u> <u>CAAGG</u>	This Study
	<i>sigB</i> -R	ATAAGAATGCGGCCGCGCTGGCGTACGA	This Study

	<u>CCGCAGCCG</u>	
<i>pabB</i> -p-F	CGCTGAAGTCCCCGTACCCGGAGAA	This Study
<i>pabB</i> -p-R	CGGCGACCGATCCCTCGACCGGG	This Study
