

Mycobacterial IclR family transcriptional factor Rv2989 is specifically involved in isoniazid tolerance by regulating the expression of catalase encoding gene katG

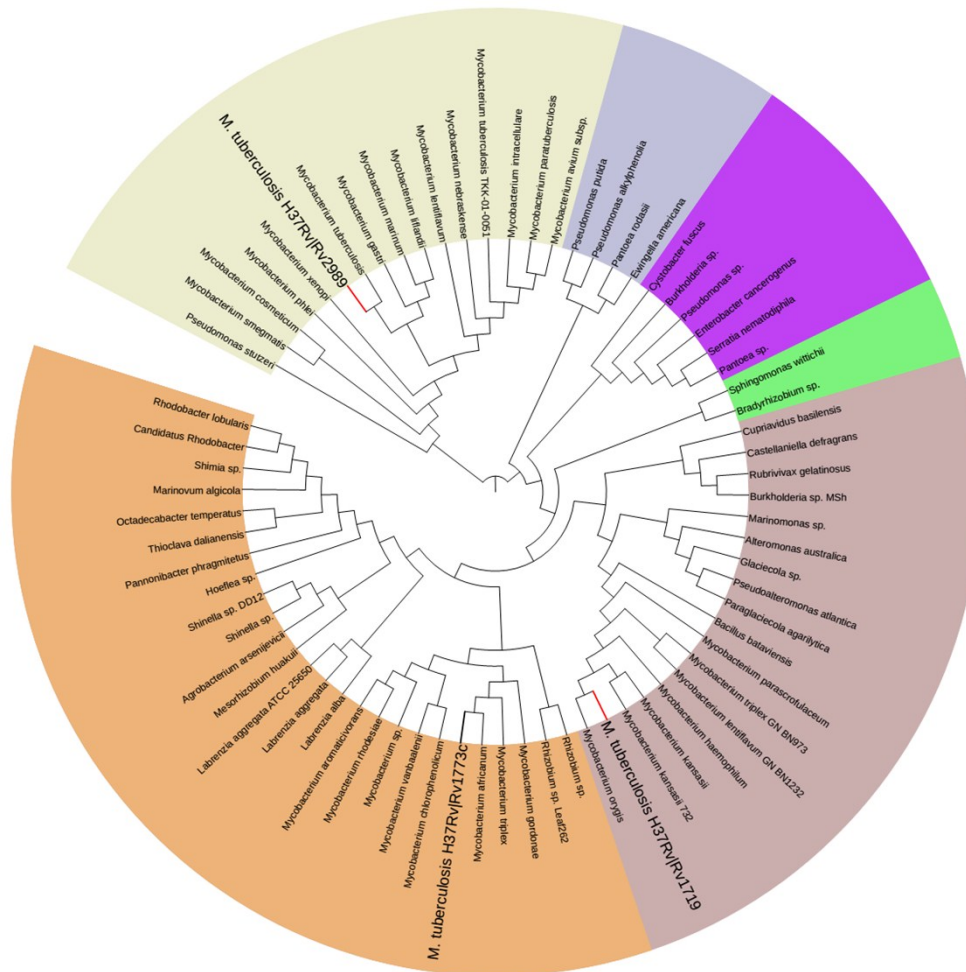
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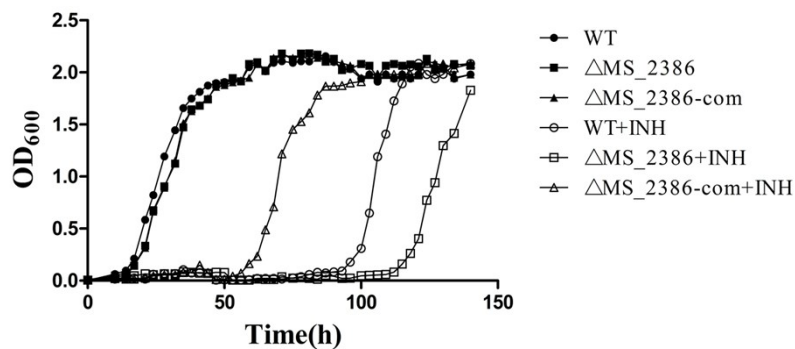
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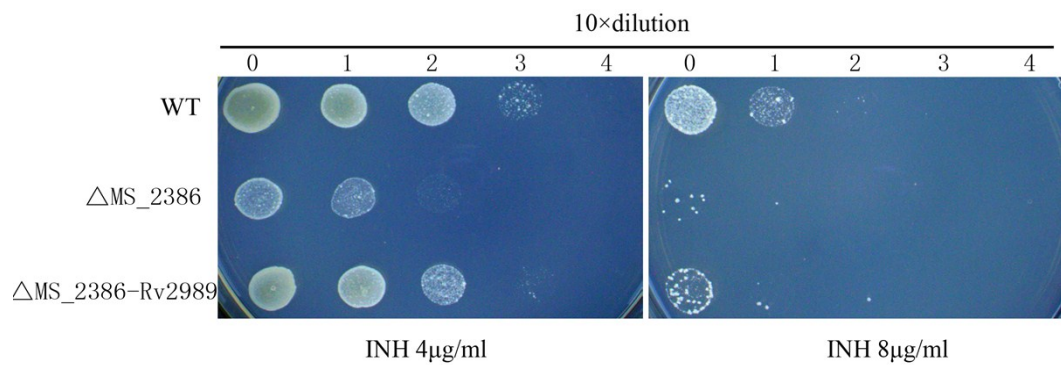
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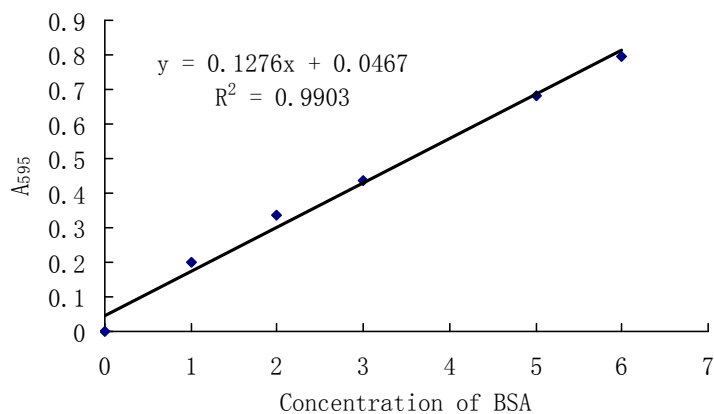
Supplementary Figure. 1. phylogenetic relationships of mycobacterial IclR family transcriptional factors in bacteria. The neighbor-joining tree (NJ) was constructed using MEGA 6.0 software.



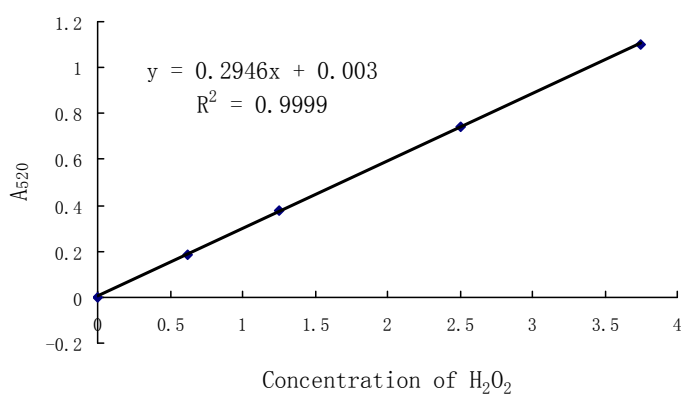
Supplementary Figure. 2. Growth curves of WT, Δ MS₂₃₈₆ and Δ MS_{2386-com} in M9 medium with or without INH (3 μ g/ml). The OD₆₀₀ were determined at an interval of 3h.



Supplementary Figure. 3 Ten-fold serial dilutions of WT, MS_2386 and Δ MS_2386-Rv2989 were spotted on Middlebrook 7H10 containing concentration of INH. Then the result was recorded when incubated at 37°C for 3 days.



Supplementary Figure. 4. Standard curve for protein concentration determined.



Supplementary Figure. 5. Standard curve for catalase activity determined.

Supplementary Table 1. Bacterial strains and plasmids used in this study

Strains or plasmid	Relevant characteristics	Source or reference
<i>E. coli</i> DH5 α	<i>E. coli</i> strain used for cloning procedures	TaKaRa
<i>M. smegmatis</i>	Wild type(WT) strain <i>Mycobacterium smegmatis</i> mc ² 155	Our lab collection
Δ MS_2386	MSMEG_2386 deletion mutant of <i>M. smegmatis</i> mc ² 155	This study

△MS_2386-com	pMV261-2386 complemented with <i>MSMEG_2386</i> from <i>M.smegmatis</i> mc ² 155	This study
pMD19-T simple vector	Amp ^r , Used for TA clone construction recombinant plasmid	TaKaRa
pJV53	replicative plasmid expressing two phage recombinases and conferring kanamycin resistance	(1)
PAL75	The plasmid carried excisable hyg cassette and weak mycobacterial promoters	(2)
pMV261	Mycobacterial shuttle vector with Kanamycin-resistance and HSP60 promotor	(3)
pMV261-2386	pMV261 carrying the <i>MSMEG_2386</i> gene	This study

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