

Supplementary Information

ArsR family regulator MSMEG_6762 mediates the programmed cell death by regulating the expression of HNH nuclease in mycobacteria

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Running Head: Programmed cell death in mycobacteria

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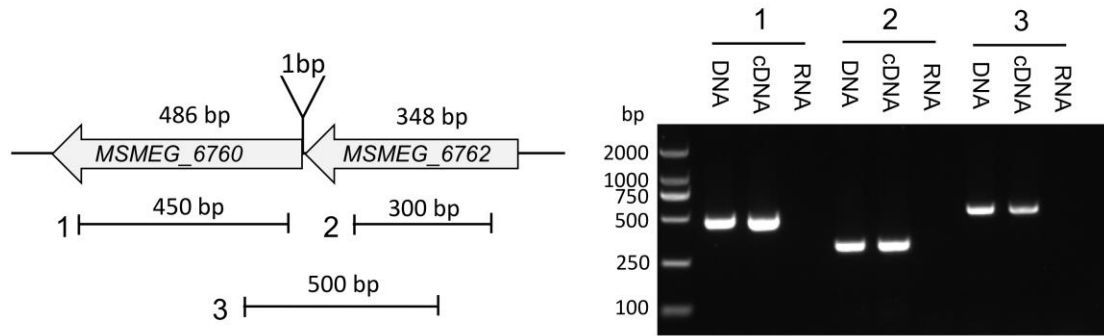


Figure S1. Genetic organization and co-transcription analysis of *MSMEG_6762-MSMEG_6760*. Total RNAs extracted from *M. smegmatis* mc² 155 were used to synthesize cDNAs. PCR was carried out with primer pairs indicated above the lanes.

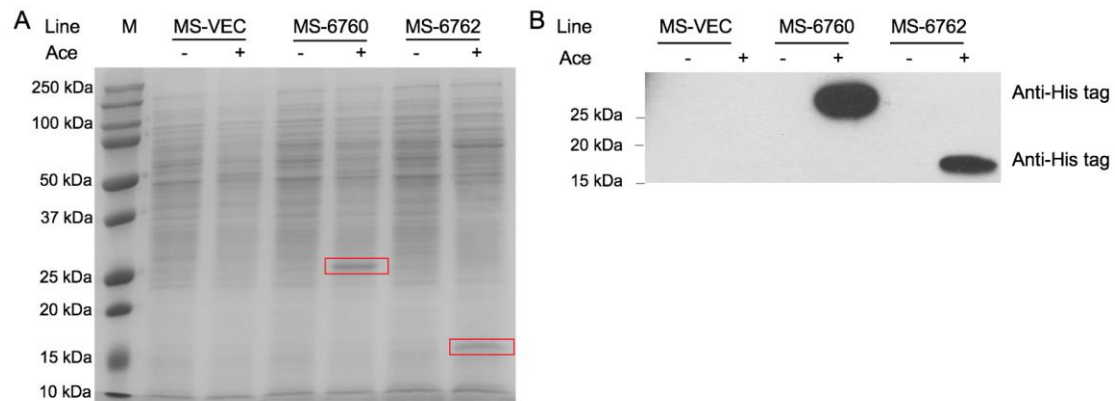


Figure S2. The expression of *MSMEG_6760* and *MSMEG_6762* in *M. smegmatis*. (A) The total protein of MS-VEC, MS-6760 and MS-6762 in the absence/presence inducer. (B) Western blot analysis of the expression of *MSMEG_6760* and *MSMEG_6762* in *M. smegmatis*.

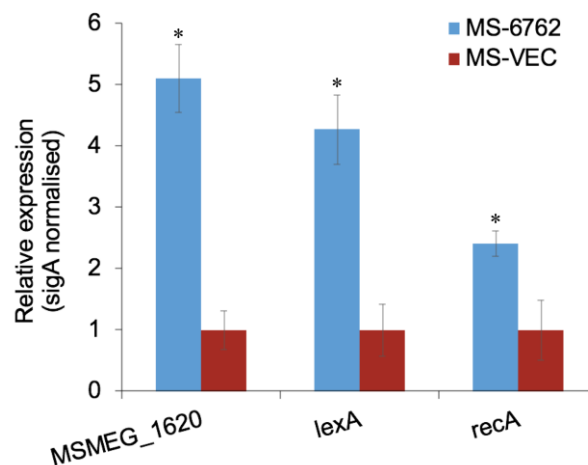


Figure S3. Verification of RNA-seq results by real-time PCR. Numbers means the numbering of gene in *M. smegmatis* mc² 155. The data were averaged from three independent experiments \pm s.d. Significant differences ($*p < 0.05$).

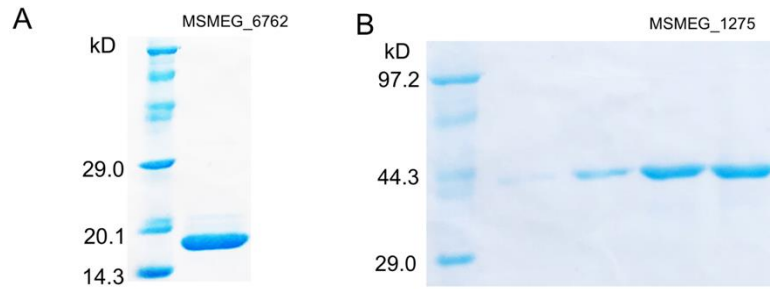


Figure S4. SDS-PAGE gel of recombinant *M. smegmatis* protein expressed and purified from *E. coli*. (A) Wild type (WT) MSMEG_6762 (18.94 kD). (B) MSMEG_1275 (45.61kD).

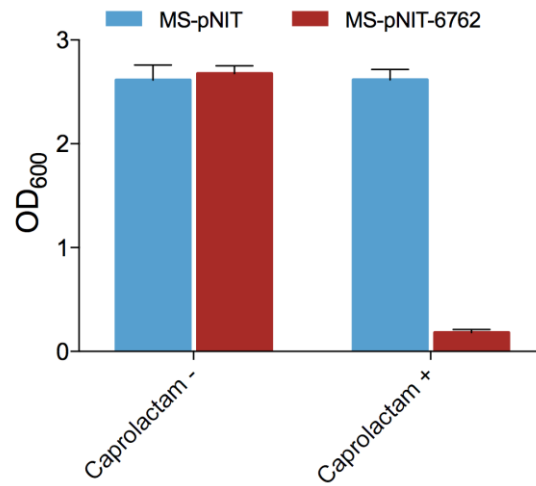


Figure S5. The effect of MSMEG_6762 on *M. smegmatis* growth when overexpressed by pNIT plasmid. OD₆₀₀ of MS-pNIT and MS-pNIT-6762 were measured after 24 h growth with and without caprolactam (final concentration 28 mM).