

# MSKBP2afamilyofribosomalRNAPolymeraseinhibitors

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from producing a detectable amount of pIbs (Fig. 1) (Fig. S3). The inhibition of infection of *Salmonella* with *Listeria monocytogenes* by MSKBP2, however, is dependent on the activity of STAT3 in the ER. To test whether the inhibition of *Salmonella* with *Listeria monocytogenes* by MSKBP2 was dependent on the activity of STAT3, the RNA was extracted from *Salmonella* cells and analyzed by Western blotting. After the addition of HEPES (50 mM) to the cells, expression of STAT3 was inhibited by MSKBP2, whereas expression of STAT3 and phosphorylated STAT3 were inhibited by MSKBP2 (Fig. S3). Therefore, the MSKBP2 inhibition of *Salmonella* by MSKBP2 may be related to the inhibition of the ER or to the ER-related proteins (Fig. S3). MSKBP2 inhibits *Salmonella* enterica serovar Typhimurium from producing a detectable amount of pIbs (Fig. 1). Figure 1. MSKBP2 inhibits the expression of pIbs in *S. enterica* serovar Typhimurium by MSK. A) mRNA expression was analyzed by Western blotting. (B) pIbs were expressed in induced polyclonal cultures (3) and monolayer cultures (3) of *S. enterica* serovar Typhimurium (Sirtin) and Sirtin (Mann) in an amount equivalent to that of the upper panel of the legend of Table 4. (C) The expression of pIbs in *S. enterica* serovar Typhimurium were stimulated with SSR, Sirtin and SSR (1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15) for 30 min; the induction of pIbs was activated by pIbs in *S. enterica* serovar Typhimurium (Sirtin) (3, 4, 5, 6, 7, 9, 10, 12, 13, 14, 15) and Sirtin (Mann) (4). MSKBP2 inhibits the expression of pIbs by *S. enterica* serovar Typhimurium by inhibition of MSK activity or phosphorylation (Fig. S3) (Fig. S1). These results indicate that MSKBP2 is required for MSK activity to inhibit *Salmonella* enterica serovar Typhimurium infection. MSKBP2 induces the expression of pIbs in *S. enterica* serovar Typhimurium. (A) MSKBP2 induced pIbs in *S. enterica* serovar Typhimurium (Sirtin) in an amount equivalent to that of the upper panel of the legend of Table 4. (B) As shown in (A), MSKBP2 induced pIbs in *S. enterica* serovar Typhimurium were stimulated with SSR and Sirtin (1, 2, 3, 4, 5, 6, 7, 9, 10, 12, 14, 15) for 30 min; MSKBP2 was also stimulated with SSR and Sirtin (1, 2, 3, 4, 5, 6, 7, 9, 10, 12, 14, 15) for 30 min. (C) MSKBP2 induced pIbs in *S. enterica* serovar Typhimurium were stimulated with SSR, Sirtin and SSR (1, 2, 3, 4, 5, 6, 7, 9, 10, 12, 14, 15) for 30 min; MSKBP2 was also stimulated with SSR and Sirtin for 30 min. (D) MSKBP2 induced pIbs in *S. enterica* serovar Typhimurium were stimulated with SSR, Sirtin, or SSR for 30 min. MSKBP2 was also stimulated with SSR or Sirtin for 30 min. MSKBP2 inhibits the expression of pIbs in *S. enterica* serovar Typhimurium by inhibition of MSK activity. MSKBP2 inhibited pIbs in *S. enterica* serovar Typhimurium by inhibition of MSK activity. (E) MSKBP2 inhibited pIbs in *S. enterica* serovar Typhimurium by inhibition of MSK activity. (F) The expression of pIbs in *S. enterica*