Figure Legends for Supplemental Figures

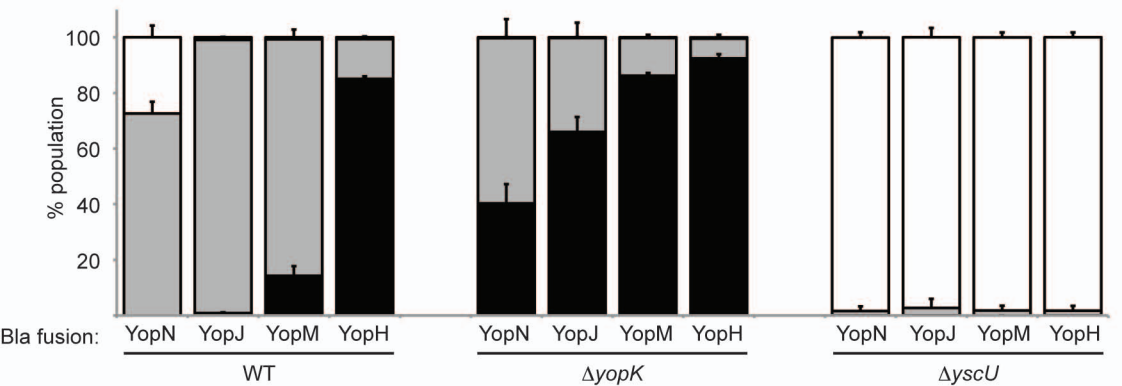
Fig. S1. Translocation of Bla reporters is increased in the *yopK* mutant. Plasmids carrying YopN-Bla, YopJ-Bla, YopM-Bla, or YopH-Bla were introduced into WT, Δ*yopK*, and Δ*yscU Y. pestis.* Each strain was then used to infect CHO cells at an MOI=10 for 3 hours, followed by CCF2-AM staining and flow cytometry. White bars: green (uninjected) cells, gray bars: aqua (low-level injection) cells, black bars: blue (high-level injection) cells.

Fig. S2. Gst-YopK is expressed but not secreted by *Y. pestis*. Plasmids carrying Gst-YopK or YopK were transformed into WT and Δ*yopK Y. pestis* carrying either YopM-Bla or Gst-Bla. Secretion assays were performed to induce expression of the TTSS, and secreted proteins (S) were separated from cells (P) by centrifugation, followed by TCA precipitation and immunoblotting. Antibodies to YopK detect native YopK as well as Gst-YopK. The YopM antibody recognized native YopM as well as YopM-Bla. αYscD (a component of the TTSS machinery) was used as a fractionation control.

Fig. S3. Secretion profile of *Y. pestis* mutant strains. WT or mutant *Y. pestis* strains carrying the YopM-Bla reporter were induced to secrete Yops (S) that were separated by centrifugation from cells (P), TCA precipitated and immunoblotted. αYopH, αYopK and αYopE were used to confirm deletions while αYopM recognized native YopM and the YopM-Bla reporter. αYscD was utilized as a fractionation control.

Fig. S4. Complementation of Δ*yopE*. *Y. pestis* strains carrying the YopM-Bla reporter were transformed with plasmids expressing either native YopE or a GAP deficient YopE ($YopE_{R144A}$) and induced to secrete Yops (S) that were separated by centrifugation from cells (P). Samples were TCA precipitated and immunoblotted with αYopE to show complementation while αYopM recognized native YopM and the YopM-Bla reporter and αYscD was used as a fractionation control. * denotes degradation products of YopE due to Pla protease.

Fig. S5. Complementation of *Y. pestis* mutant strains with YopK or YopE. *Y. pestis* strains carrying the YopM-Bla reporter were transformed with plasmids expressing either native YopK or YopE. Strains were induced to secrete Yops (S) that were separated by centrifugation from cells (P), TCA precipitated and immunoblotted. Antibodies raised against YopK and YopE were used to confirm complementation while αYopM recognized native YopM and the YopM-Bla reporter. αYscD was used as a fractionation control. * denotes degradation products of YopE due to Pla protease.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80
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40
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Bla fusion:
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YopJ
YopM
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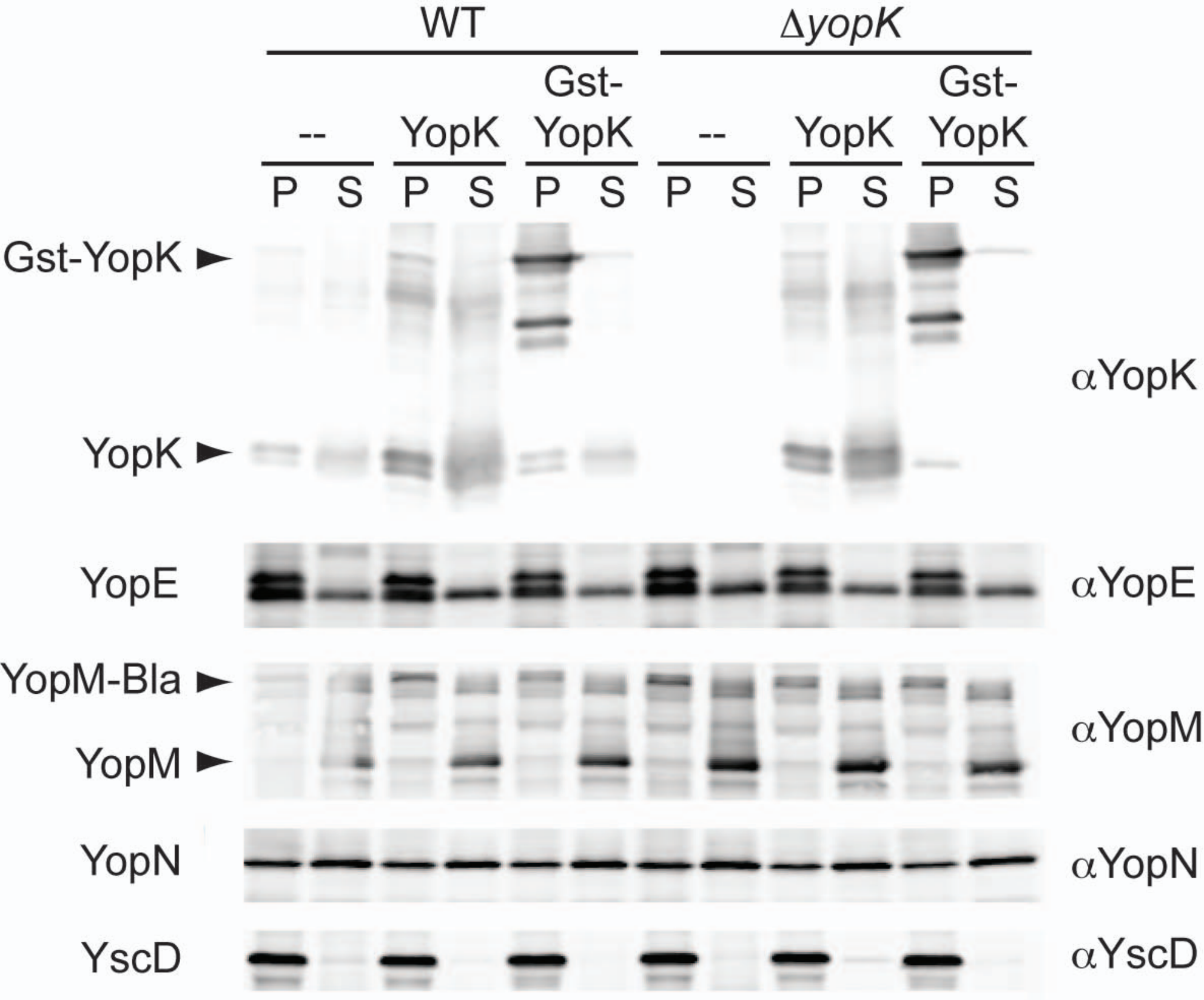
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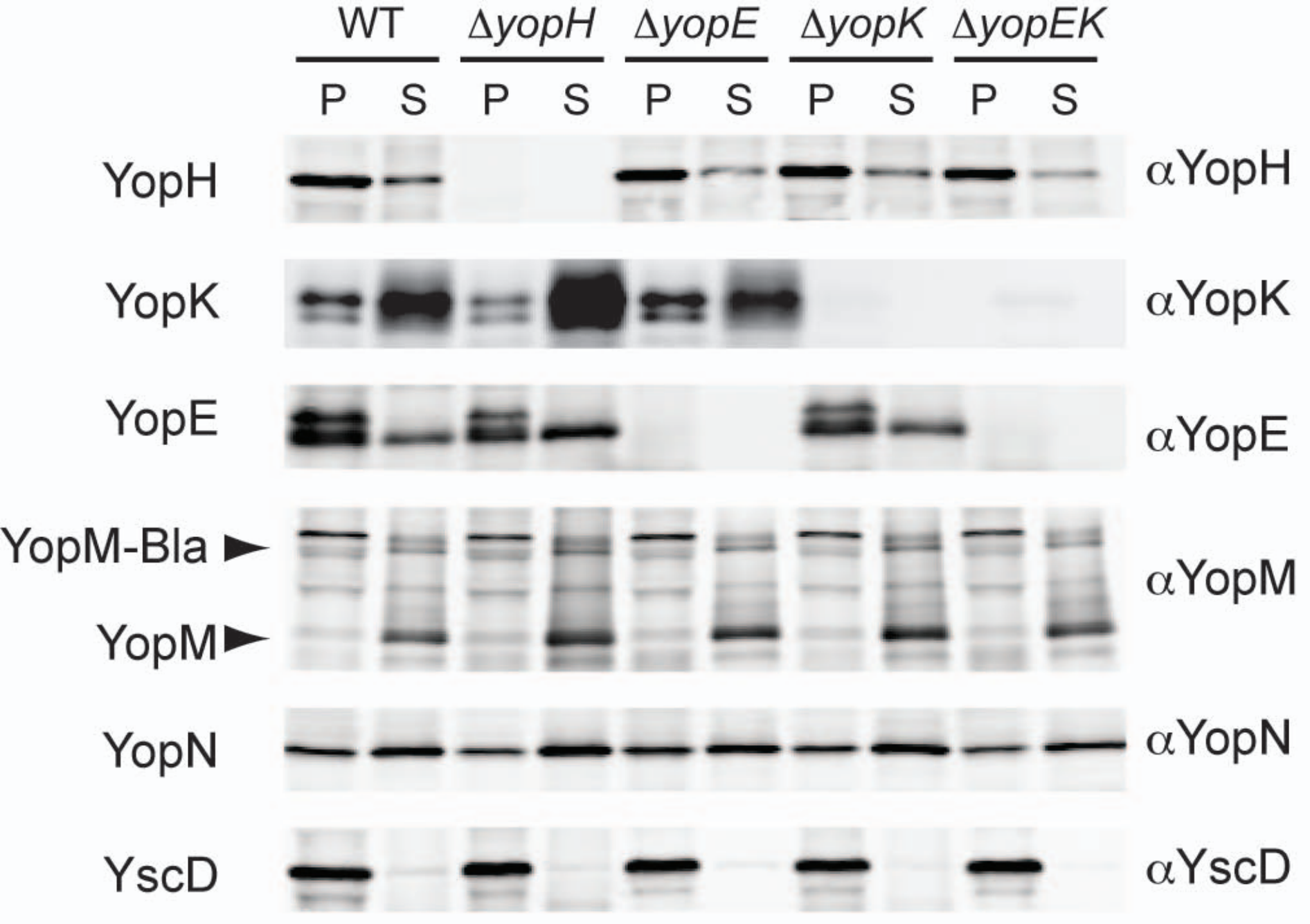
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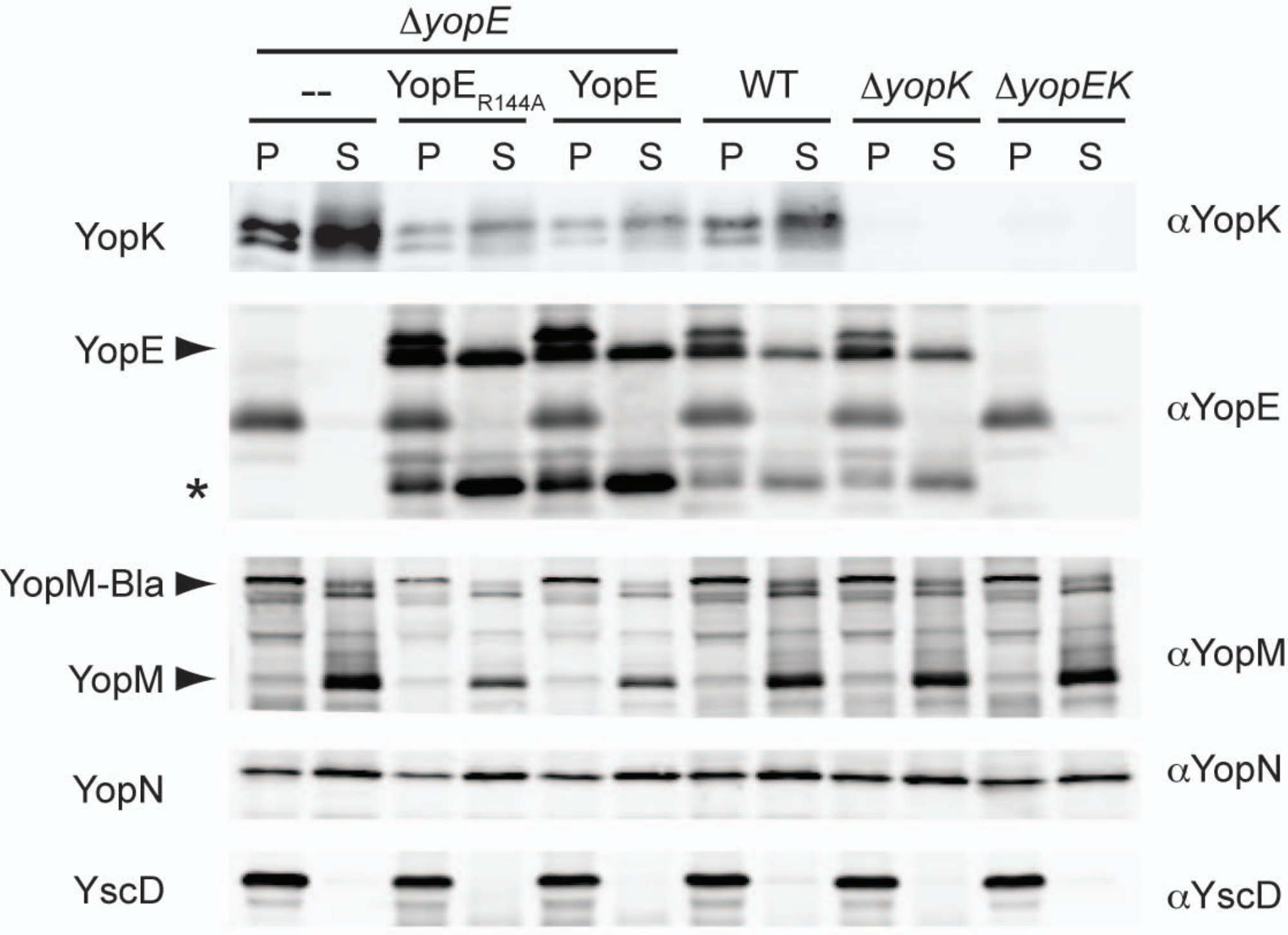
ΔyopE
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YopE$_{R144A}$
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WT
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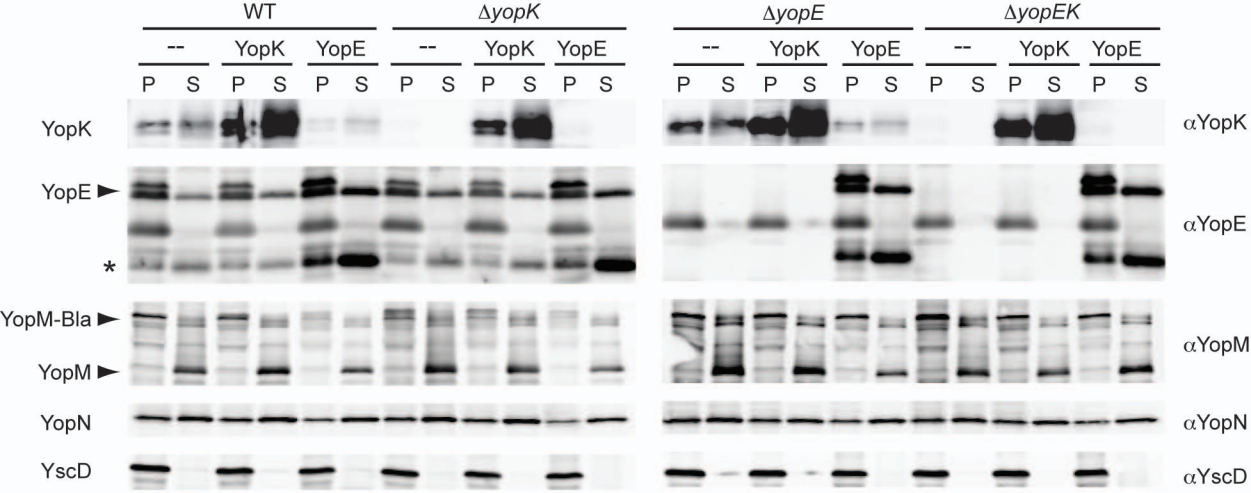
WT
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