Supplementary Material to

Promiscuous targeting of polytopic membrane proteins to SecYEG or YidC by the *E. coli* Signal Recognition Particle

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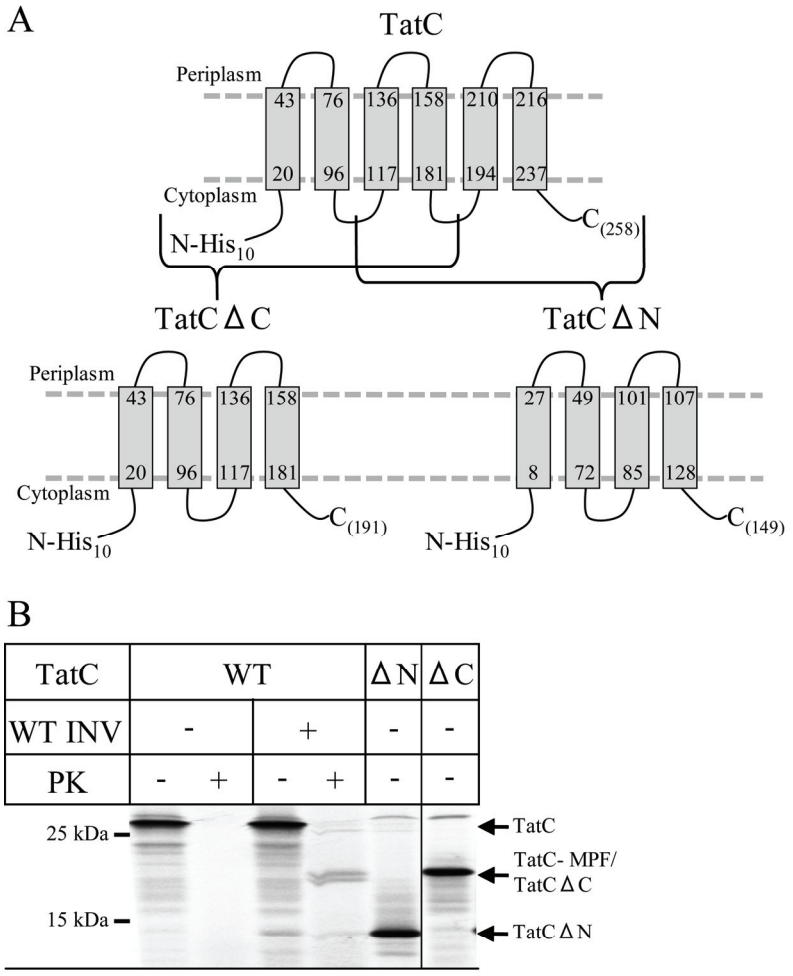
Running title: SRP-dependent targeting to YidC or SecYEG

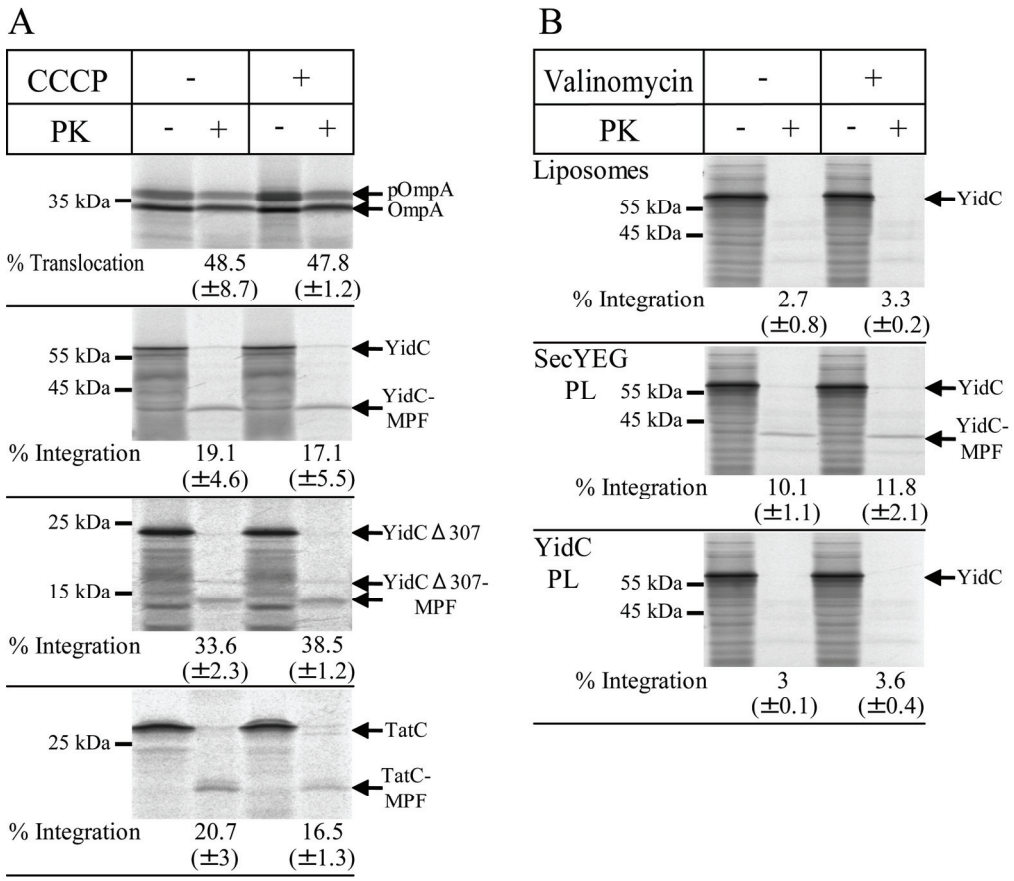
Legends to Supplementary Figures



Welte et al., Suppl. Fig.1

Supplementary Fig. 1 Defining the membrane-protected fragment of TatC.

(A) Cartoon showing the topology of TatC and of two truncated TatC-derivatives. (B) TatC, TatCΔC andTatCΔN were *in vitro* synthesized as described in the legend to Fig. 2. TatC was synthesized in the presence of INV and one portion was subsequently treated with proteinase K (PK). The full-length proteins and the TatC membrane-protected fragment (MPF) are indicated.



Welte et al., Suppl. Fig. 2

Supplementary Fig. 2 The proton-motive-force does not significantly influence transport of OmpA, YidC, YidCΔ307 or TatC.

The proteins were *in vitro* synthesized in the presence of INVs and when indicated 100µM CCCP was added. pOmpA corresponds to signal sequence-containing OmpA, while OmpA is the mature form. For the inner membrane proteins, full size proteins and membrane-protected fragments are indicated. (B) YidC was synthesized in 100 mM KOAc buffer in the presence of SRP, FtsY, SecA and liposomes/proteoliposomes loaded with 100 mM Na_2SO_4 as described in the material and methods and in the legend to Fig.5. For generating a membrane potential, Valinomycin was added to a final concentration of 0.4 µM.