

**Cell-free and yeast-based production of the malarial lactate transporter, PfFNT,
delivers comparable yield and protein quality**

P. Hajek, A. Bader, F. Helmstetter, B. Henke, P. Arnold, E. Beitz

(A) pIVEX2.3 PfFNTopt

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(B) pPink-HC PfFNTopt

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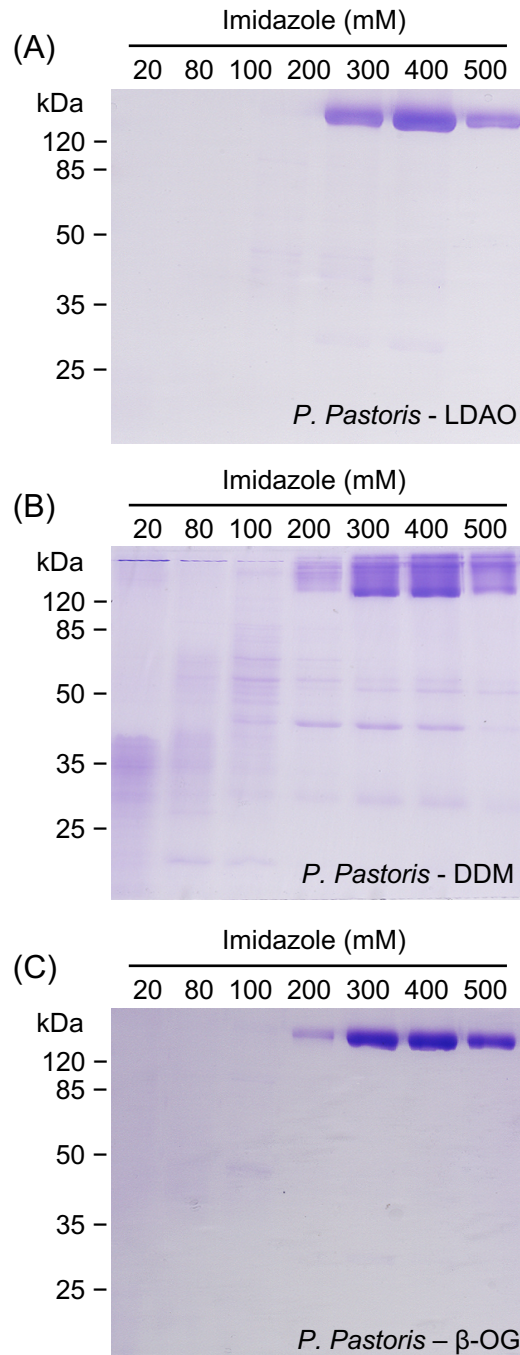
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Supplementary Fig. S1. DNA sequences of the used expression constructs. (A) Cell-free PfFNT was transcribed from the pIVEX2.3 plasmid. (B) *P. pastoris* PfFNT was transcribed from the pPink-HC plasmid. The plasmid sequences are shown in lower case, the coding regions in upper case.

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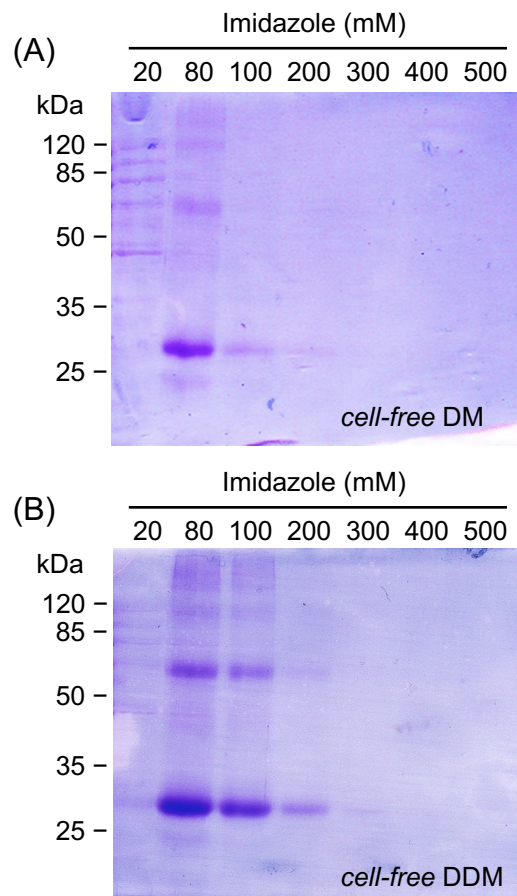
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Supplementary Fig. S2. Ni^{2+} -affinity purification of *P. pastoris* expressed PfFNT in LDAO (A), DDM (B), and β -OG (C) via C-terminal His-tags. PfFNT monomers have a molecular mass of 30 kDa, the pentamer accordingly of 150 kDa.

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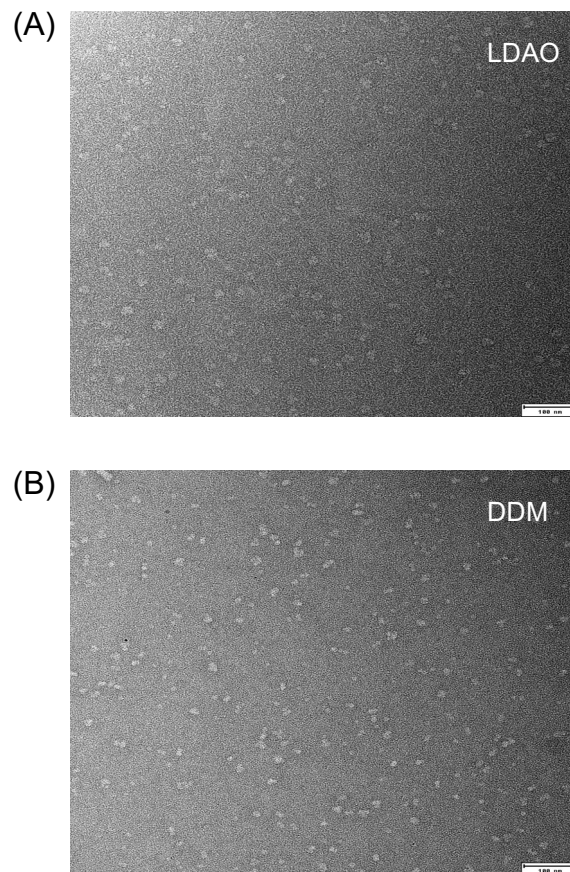
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Supplementary Fig. S3. Detergent exchange during Ni^{2+} -affinity chromatography from Brij78 to DM (A) and DDM (B) of cell-free produced PfFNT. Monomers have a molecular mass of 30 kDa, the pentamer accordingly of 150 kDa. The laddering indicates partially SDS-resistant homooligomers up to the pentamer.

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Supplementary Fig. S4. Transmission electron microscopy of *P. pastoris* expressed PfFNT in LDAB (A) and DDM (B). Both detergents led to blurry particle images and were inferior to DM (see Fig. 2 of the main paper).