**Table S2. Sequences and calculated masses of *N. meningitidis* EF-P**

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| *<* *N. meningitidis* HT1125 EF-P (calcd. mass: 20893.78 Da)>  MKTAQELRAGNVFMVGNDPMVVQKTEYIKGGRSSAKVSMKLKNLLTGAASETIYKADDKFDVVILSRKNCTYSYFADPMYVFMDEEFNQYEIEADNIGDALKFIVDGMEDQCEVTFYEGNPISVELPTIIVREVEYTEPAVKGDTSGKVMKTARLVGGTEIQVMSYIENGDKIEIDTRTGEFRKRA |
| *<* *N. meningitidis* H44/76 EF-P (calcd. mass: 20879.75 Da)>  MKTAQELRAGNVFMVGNDPMVVQKTEYIKGGRSSAKVSMKLKNLLTGAASETIYKADDKFDVVILSRKNCTYSYFADPMYVFMDEEFNQYEIEADNIGDALKFIVDGMEDQCEVTFYEGNPISVELPTIIVREVEYTEPAVKGDTSGKVMKTARLVGGTEIQVMSYIENGDKVEIDTRTGEFRKRA |
| *<N. meningitidis* H44/76 EF-P with the His6-tag (calcd. mass: 23,043.07 Da)>  MGSSHHHHHHSSGLVPRGSHMKTAQELRAGNVFMVGNDPMVVQKTEYIKGGRSSAKVSMKLKNLLTGAASETIYKADDKFDVVILSRKNCTYSYFADPMYVFMDEEFNQYEIEADNIGDALKFIVDGMEDQCEVTFYEGNPISVELPTIIVREVEYTEPAVKGDTSGKVMKTARLVGGTEIQVMSYIENGDKVEIDTRTGEFRKRA |
| <The His6-tag-cleaved *N. meningitidis* H44/76 EF-P (calcd. mass: 21,161.02 Da)>  GSHMKTAQELRAGNVFMVGNDPMVVQKTEYIKGGRSSAKVSMKLKNLLTGAASETIYKADDKFDVVILSRKNCTYSYFADPMYVFMDEEFNQYEIEADNIGDALKFIVDGMEDQCEVTFYEGNPISVELPTIIVREVEYTEPAVKGDTSGKVMKTARLVGGTEIQVMSYIENGDKVEIDTRTGEFRKRA |

The residues from the pET28-derived His6-tag are shown in blue letters. *N. meningitidis* HT1125 EF-P has a point mutation in domain III, where the Val173 residue in *N. meningitidis* H44/76 EF-P is replaced by Leu173, as shown in red letters. The amino acid sequence identities of HT1125 EF-P with those of H44/76 and MC58 are 99.5%. The Arg32 residues are highlighted in purple.