



Fig. 9. Directed evolution and enzymatic production of 1-naphthol. **A.** Fast red-based screening resulting in several UPO variants hydroxylating naphthalene. **B.** Mutations in the best UPO variant (JaWa) located at the heme channel (top) and the surface (bottom) of the UPO crystal structure. **C.** HPLC profile of 1-naphthol production by JaWa compared with a second variant (PaDa-I). Adapted from Molina-Espeja et al. (2016a).