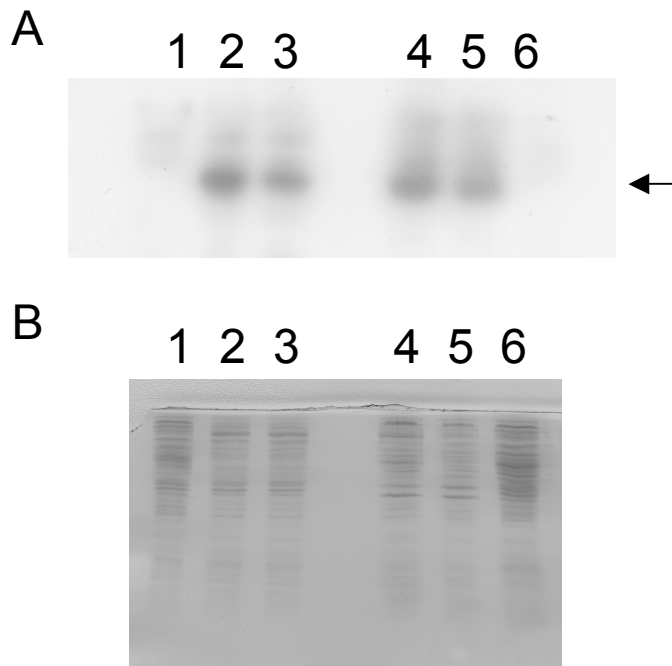


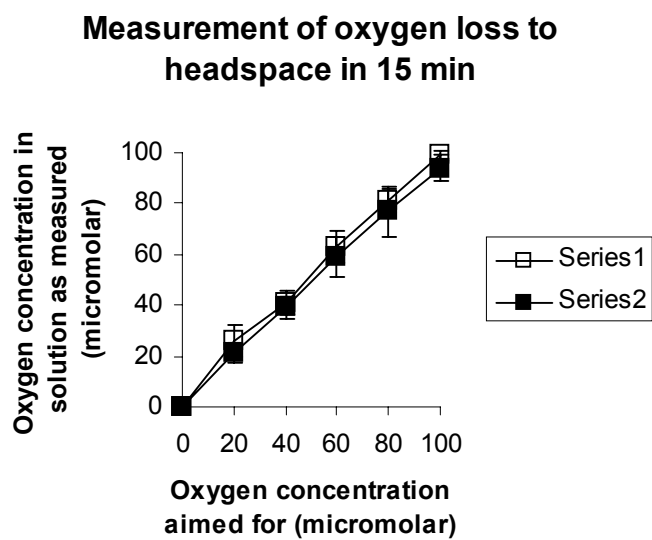
Supporting Information Figure 1.

FNR and FNR-S24F expressed from pGS24 and pGS2140B are present at similar concentrations in *E. coli* cell-extracts. (A) Western blot of independent cultures expressing: lanes 1 and 6, no FNR protein (pBR322); lanes 2 and 5, wild-type FNR (pGS24); lanes 3 and 4 FNR-S24F (pGS2140B). (B) Coomassie blue- stained gel showing equivalent loading of samples. Lanes 1 and 6, no FNR protein (pBR322); lanes 2 and 5, wild-type FNR (pGS24); lanes 3 and 4 FNR-S24F (pGS2140B).



Supporting Information Figure 2.

Determination of oxygen in solution by Winkler titration at t=0 and after 15 min incubation under an anaerobic headspace in the cuvettes used for kinetic measurements. Series 1, t=0 min; series 2, t=15 min (n=4, mean and standard deviation).



Supporting Information Figure 3.

Measurement of changes in oxygen concentration in the headspace of the cuvettes used in the kinetic experiments as described in the manuscript using an OxyMicro probe (WPI). A representative trace is shown illustrating that the transfer to the headspace is insignificant under the conditions used. The inset shows the same trace with an expanded oxygen saturation axis.

