Protocol S16. Bacterial strains, plasmids, and genetic screens

The F- ‘recipient’ single gene deletion knock-out strain marked with KanR were from the Keio mutant library [1]. The Hfr C non-essential donor gene deletion mutant strains or essential gene hypomorphous mutations were constructed using the λ-Red recombination [2-4] or P1 phage transduction [5] system. For assessing the effect of ravA and viaA on oxidative stress, we used the plasmids pRKISC and pRKNMC donated by Prof. Yasuhiro Takahashi (Saitama University, Japan). pRKISC carries the entire isc gene cluster (iscRSUA-hscBA-fdx-iscX) and has been shown to enhance the biogenesis of Fe-S clusters [6], whereas pRKNMC served as the empty vector control for pRKISC. Both the wild type (WT) and ravAviaA mutants were transformed with the aforementioned two plasmids to obtain WT-pRKISC, WT-pRKNMC, ΔravAviaA-pRKISC, and ΔravAviaA-pRKNMC strains.

References: