

Resource Summary Report

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Fermentor Growth of Streptococcus sanguinis

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Proper Citation

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Protocol Information

URL: <https://dx.doi.org/10.17504/protocols.io.bkayksfw>

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Summary: Streptococcus sanguinis is a lactic acid-forming bacterium that can be cultured in both aerobic and anaerobic conditions. It is a primary colonizer of the oral cavity but can also cause a heart disease called infective endocarditis. Our main objective for this protocol was to grow large, controlled cultures before and after manganese depletion for various analyses. In order to obtain large scale, reproducible growth of S. sanguinis, a biostat was used to maintain controlled conditions. After optimization, it was determined that traditional chemostat conditions (Burne and Chen, 1998) were not appropriate for these experiments. Thus, we decided on this modified protocol. Using this method, we were able to identify a concentration of the non-specific metal chelator, EDTA, that would lead to a decreased growth rate in a manganese transporter mutant but not in the wild-type strain.

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