

## Identifikasi *S. mutans* dan *S. sobrinus* dengan morfologi koloni dan analisa biokimia

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Abstrak

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Mutans streptococci are considered as major bacteria in human dental caries, and *S. mutans* and *S. sobrinus* are the ones most commonly found in humans. It has been shown from previous study that the numbers of *S. sobrinus* in oral samples are usually underestimated, and the *S. sobrinus* colonies are often misidentified as *S. mutans*. The aim of this study was to identify *S. mutans* and *S. sobrinus* from dental plaque of children. Dental plaque samples were collected using sterile cotton swabs from first and second upper deciduous molars from 3 children. Samples of dental plaque were inoculated onto MSB-0.5% yeast extract-20% sucrose. Identification of *S. mutans* and *S. sobrinus* was performed using examination of colony morphology and biochemical analysis with inulin and raffinose. Identification results were then documented as digital images with Olympus Digital BX 51. *S. mutans* form convex, translucent colonies with rough margins, while the *S. sobrinus* colonies are translucent, circular, with pinpoints are smooth margins. Agglutinating bubble often accumulates on top of the colony when excessive glucan is synthesized from sucrose. Biochemical analysis had showed positive reaction on *S. mutans*, and negative on *S. sobrinus*. From this study it can be concluded that *S. mutans* and *S. sobrinus* could be identified clearly with examination of colony morphology and biochemical analysis.