

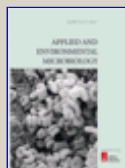
Exopolysaccharide Production by *Streptococcus salivarius* ssp. *thermophilus* Cultures. 2. Distinct Modes of Polymer Production and Degradation Among Clonal Variants

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A population of *Streptococcus salivarius* ssp. *thermophilus* S22 was clonally heterogeneous in polymer production and the mucoid character of colonies. Weak, moderate, or hyper-producing clones could be selected on selective medium showing that strain S22 was composed of cell types with different polymer production. Optimal polysaccharide production was induced either by lactose or by sucrose and required defined conditions of temperature and initial growth pH. In liquid medium, two degradative systems appeared to be active on short or mature polysaccharides. Environmental signals may trigger either of the two modes of production and degradation in the different types in the population.

Key Words: *Streptococcus salivarius* ssp. *thermophilus* • mucoid character • clonal heterogeneitySubmitted on March 4, 1993
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