

Request Information

Permalink

# USE OF STREPTOCOCCUS THERMOPHILUS lacZ AS A VERSATILE REPORTER GENE FOR CANDIDA ALBICANS

Tech ID: 19097 / UC Case 1999-089-0

## BRIEF DESCRIPTON

The beta-galactosidase-encoding gene from E. coli, lacZ, has proved to be a highly versatile reporter of gene expression in the yeast Saccharomyces cerevisiae, having been used to study many aspects of signal transduction pathways, gene regulation and other cellular processes. However, the expression of this and other reporter genes in the human pathogen, Candida albicans, has been complicated by the alternative codon usage of this organism. UCSF researchers have developed the use of the lacZ gene from Streptococcus thermophilus as a reporter gene for C. albicans. The sensitivity, specificity and ease of use of this reporter has been demonstrated using various C. albicans promoters successfully in both quantitative and qualitative assays. In addition, the S. thermophilus lacZ also functions in Saccharomyces cerevisiae, allowing for comparative assays. Thus, all of the advantages of using lacZ as a reporter are now also available for the medically important yeast, C. albicans.

## OTHER INFORMATION

- Uhl MA and Johnson AD, Development of Streptococcus thermophilus lacZ as a reporter gene for Candida albicans. (2001) Microbiology. May;147(Pt. 5):1189-95.

### CONTACT

Sunita R. Rajdev  
[sunita.rajdev@ucsf.edu](mailto:sunita.rajdev@ucsf.edu)  
tel: 415-340-2476.



### OTHER INFORMATION

#### KEYWORDS

lacZ, reporter genes

#### CATEGORIZED AS

- Medical
- Research Tools

#### RELATED CASES

1999-089-0