Drug Discovery & Development

Fluorescent-Tagged Moraxella Catarrhalis For Cell Culture Experiments

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The Invention

The present invention is a fluorescence-based cell assay for studying the replication of Moraxella catarrhalis. UW-Madison researchers developed a bacterial strain that fluoresces red by producing the fluorescent mCherry protein constitutively. This strain is optimal for pathogenicity and virulence studies because the genetic construct designed is stable and does not require supplementation of antibiotics or other molecules that often interfere with cell culture experiments. The researchers designed a construct that integrates specifically into a M. catarrhalis chromosome. Consequently, the construct can be selected for using spectinomycin, but the antibiotic is not required for its maintenance. Further, expression of the mCherry gene, responsible for production of the fluorescent mCherry protein, is driven by a constitutive tetA promoter, which causes the M. catarrhalis cells to fluoresce red. This allows for researchers to monitor M. catarrhalis either microscopically during cell culture experiments or with a fluorometer.

Additional Information

For More Information About the Inventors

- Cameron Currie

Tech Fields

- Drug Discovery & Development : Disease models
- Research Tools : Cell lines

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847