

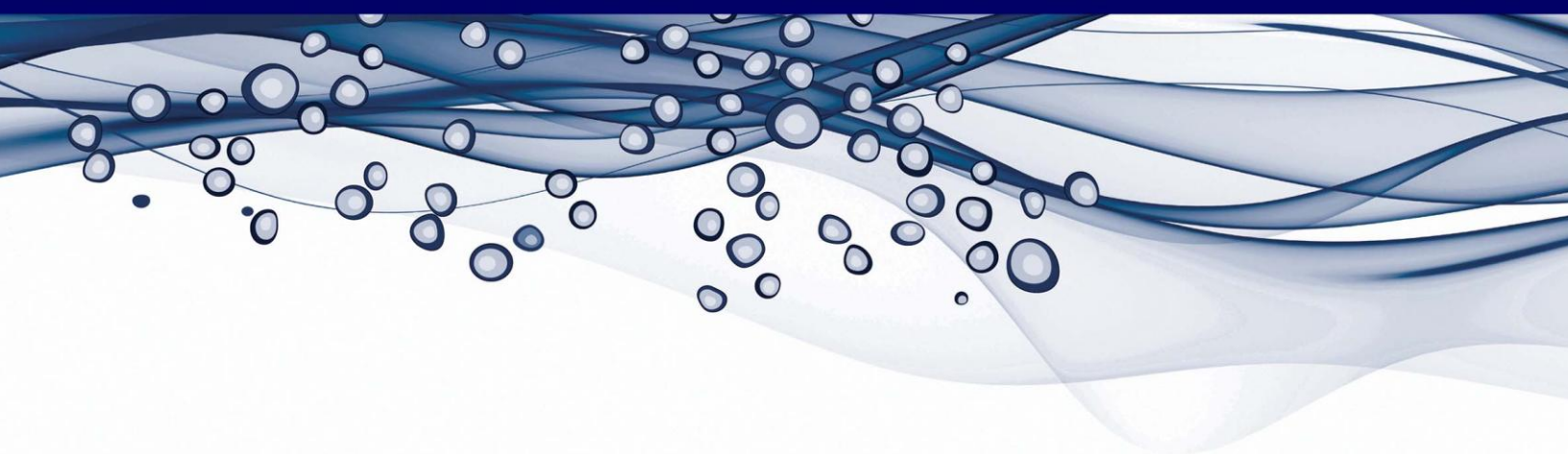
# Cellometer<sup>®</sup>

**Product Number:** CS1-0125-200uL

**Description:** Cellometer ViaStain<sup>™</sup> CFDA-AM Yeast Vitality Stain

**Instrument (s):** Vision10x, X2

## Instruction Booklet: ViaStain<sup>™</sup> CFDA-AM Yeast Vitality Stain



This product is for RESEARCH USE ONLY and is not  
approved for diagnostic or therapeutic use.  
8001659 Rev. A



## Product

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Part Number: **CS1-0125-200uL**

Description: **ViaStain™ CFDA-AM Yeast Vitality Stain**

Manufacturer Lot Number: **YYMMDD-RR-B**

Size: 100 tests

## Description

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The ViaStain™ CFDA-AM Yeast Vitality Stain enables the user to quantitatively distinguish metabolically active Lager and Ale yeast in pure cultures and in cultures containing debris such as beer slurries using the Cellometer system. The stain contains a solution of a cell-permeant esterase substrate, CFDA-AM (5-Carboxyfluorescein Diacetate, Acetoxymethyl Ester), that fluoresces green when hydrolyzed by enzymatically active Lager and Ale yeast. The percent of yeasts that are actively fermenting during production can be determined and used to optimize the fermentation process during beer brewing, for example.

## Materials

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### Materials Supplied

1. Cellometer ViaStain™ CFDA-AM Yeast Vitality Stain (CS1-0125)\*
  - a. One 200 µL vial of CFDA-AM solution

\* Each vial contains sufficient material to perform ~ 100 tests using the Cellometer system.

### Materials Required

1. Micro centrifuge tube
2. Pipette
3. Cellometer counting chamber (SD100 or PD100)
4. Cellometer Vision 10x, or Cellometer X2 (with Fluorescence Optical Module F101, VB-535-401, or equivalent)

## Procedure

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1. Dilute the yeast sample to  $2 \times 10^7$  cells/mL.
2. Create a working concentration of CFDA-AM by combining 198 µL PBS and 2 µL of the CFDA-AM (CS1-0125) solution; this is now Solution A. Mix by vortexing for 10 seconds. (Use the Solution A within 3 hrs)
3. Stain yeast by combining 100 µL of sample with 100 µL of Solution A. Mix by pipetting up and down at least 10 times.
4. Incubate yeast for 45 min at 30°C in the dark. At the conclusion of the incubation, cells are ready to be imaged, no washing is necessary.
5. Pipette sample up and down 10 times, or vortex, to evenly distribute cells, then load 20 µL into a counting chamber (if using SD100 slides, peel plastic film off both sides before loading).

6. Place loaded slide on a Kimwipe® and wait 1 min before inserting sample into the instrument, to allow the sample to settle in the chamber.
7. Select the appropriate assay type for yeast vitality measurement.
8. Preview bright-field and fluorescent images
9. Count

### Storage and Handling

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Store the CFDA-AM (CS1-0125) solution between 4°C and -20°C, protected from light. Please consult the Material Safety Data Sheet for more safety information, found on [www.nexcelom.com/Products](http://www.nexcelom.com/Products).

### Warranty

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This product is for RESEARCH USE ONLY and is not approved for diagnostic or therapeutic use. Product is warranted to meet the specifications outlined in the Certificate of Analysis when stored and used according to the manufacturer's instructions. No other warranty, expressed or implied (such as merchantability, fitness for a particular purpose, or non-infringement) is granted. Warranty is valid until the expiration date stated on the product label. If no expiration is listed, the warranty is valid for 12 months from the date of product receipt.

Warranty will be void if product is stored incorrectly, the recommended protocol is not followed, or the product is used for a different application.

### Quality Control

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Manufactured and tested according to SOP #: 8001434

Passed



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Matthew Bularzik, Quality Engineer

06/5/2014