PRODUCT INSERT

Instrument Compatibility: Cellometer Auto 2000, Cellometer K2, Cellometer Spectrum, Cellaca® MX, and Cellaca® PLX

ViaStain™ AOPI Staining Solution in PBS

Part number:	CS2-0106-5mL	CS2-0106-25mL
Volume:	5 mL	25 mL

Storage: 2-8°C

Description

The ViaStain™ AOPI Staining Solution in PBS enables the user to quantitatively distinguish live and dead nucleated cells from a variety of primary mammalian cell samples, even in the presence of a high background of non-lysed red blood cells, platelets and/or debris using the Cellometer or Cellaca systems. This formulation has been optimized to work with whole blood, peripheral blood mononuclear cells (PBMC), bone marrow, splenocytes, thymocytes, lymph nodes and hepatocytes but also works in various other digested tissues and cultured cell lines. The solution contains a combination of the green-fluorescent nucleic acid stain, acridine orange (AO), and the red-fluorescent nucleic acid stain, propidium iodide (PI). Propidium iodide is a membrane exclusion dye that only enters cells with compromised membranes while acridine orange penetrates all cells in a population. When both dyes are present in the nucleus, PI causes a reduction in AO fluorescence by fluorescence resonance energy transfer (FRET). As a result, nucleated cells with intact membranes stain fluorescent green and are counted as live, whereas nucleated cells with compromised membranes only stain fluorescent red and are counted as dead when using the Cellometer and Cellaca systems. Non-nucleated material such as red blood cells, platelets and debris do not fluoresce and are ignored by the Cellometer and Cellaca software.

Materials Supplied

Reagent	Catalog number	Cellometer Number of Tests	Cellaca Number of Tests
ViaStain™ AOPI Staining Solution in PBS	CS2-0106-5mL CS2-0106-25mL	250 Tests 1250 Tests	100 Tests 500 Tests

Materials Required

- Micro centrifuge tube
- Pipette and pipette tips
- Cellometer disposable counting chamber (Cat. # SD100 or PD100) if using a Cellometer system OR Revvity counting plate (Cat. # CHM24-A100 or CHM24-B100) if using a Cellaca system
- Cellometer Auto 2000, Cellometer K2, Cellometer Spectrum (with Fluorescence Optics Modules S1-534-470 and S1-655-527), Cellaca MX, or Cellaca PLX

Procedure for Cellometer systems

1. Pipette 20 µL of cell sample into a micro centrifuge tube.
2. Add 20 µL of AOPI staining solution to micro centrifuge tube and mix well by pipetting up and down at least 3 times.
3. Load 20 µL into a counting chamber (if using SD100 slides, peel plastic film off both sides before loading).
4. Insert loaded slide into the instrument.
5. Select the appropriate assay type for AOPI viability measurement.
6. Preview bright-field and fluorescent images.
7. Focus if necessary.
8. Count.

Procedure for Cellaca systems

1. Pipette 50 µL of cell sample into a mixing well of a counting plate (or micro centrifuge tube).
2. Add 50 µL of AOPI staining solution to cells and mix well by pipetting up and down at least 3 times.
3. Load 50 µL into the loading well of a counting plate.
4. Repeat staining procedure for any additional samples and load into a different well.
5. Insert plate into the instrument.
6. Select the appropriate assay type for AOPI viability measurement.
7. Preview bright-field and fluorescent images.
8. Count.

Storage and Handling

Store the AOPI Staining Solution at 2-8°C, protected from light. AVOID FREEZING. Safety precautions must be taken when handling the solution. Please consult the Safety Data Sheet for more safety information, found on **www.revvity.com/cellcountingreagents**.

Warranty

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.

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

Ordering Information / Support

When ordering with a Purchase Order:

E-mail a copy of the order to **Cellc-sales@revvity.com**

For online orders, please visit:

https://www.revvity.com/cellcountingreagents

For support, e-mail **Cellc-support@revvity.com**

www.revvity.com

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