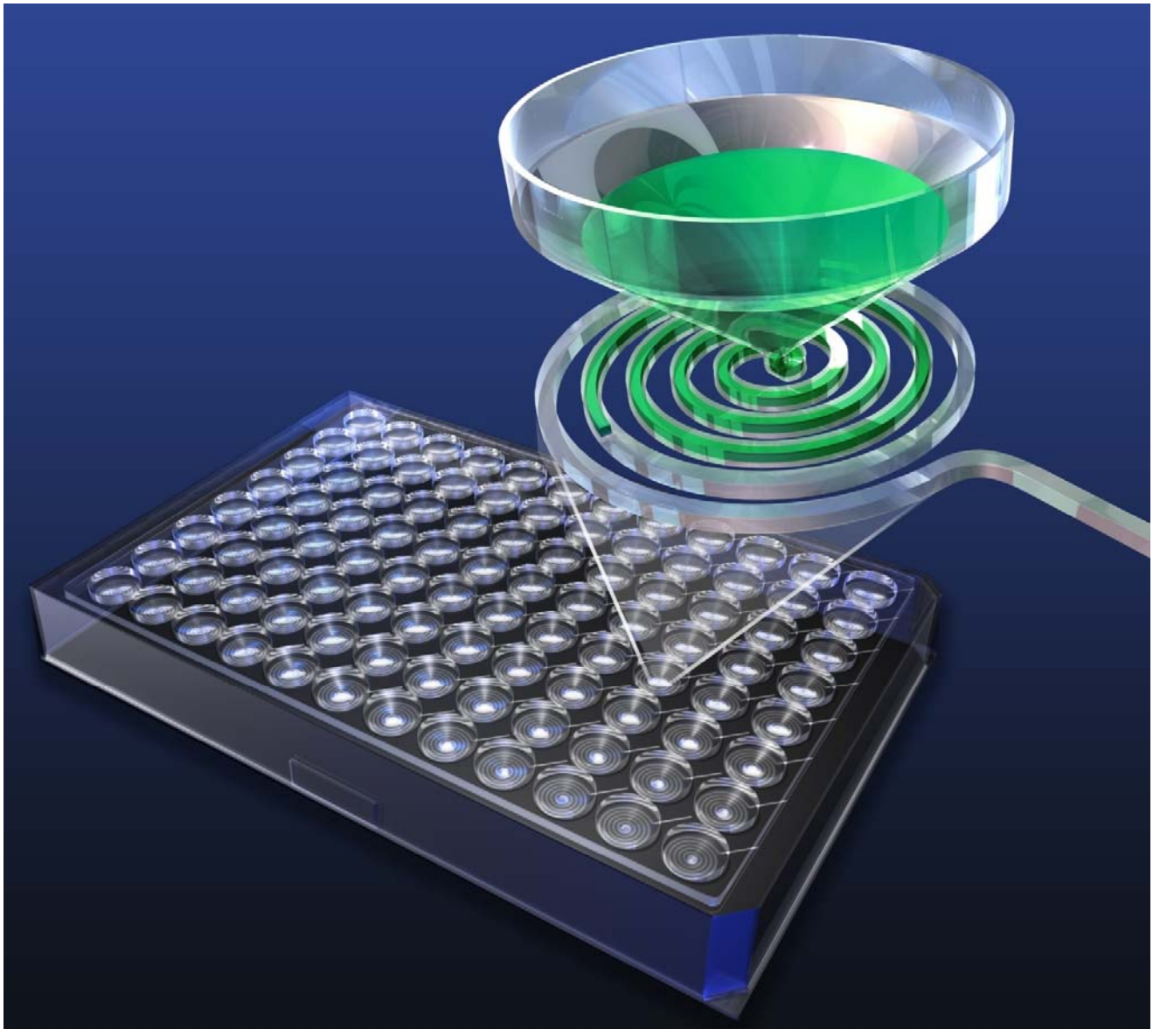
TECHNICAL NOTE

TN0007: Optimiser™ Microplate System (ELISA) Setup Guide on the PerkinElmer VICTOR™ X Multilabel Microplate Reader

OPTIMISER™

THE NEXT GENERATION OF MICROPLATES



SILOAM biosciences

Better Immunoassays through Innovative Microfluidics

READER SETUP WITH PERKINELMER VICTOR™ X MULTILABEL PLATE READER :

The PerkinElmer VICTOR™ X Multilabel Plate Reader with fluorescence function has been tested for compatibility with Siloam's Optimiser™ microplate System in ELISA assay with OptiGlow™ chemifluorescent substrate. Please refer to the Optimiser™ Technology page on Siloam's website for more details on the principles behind the Optimiser™ microplate platform. For more detailed information of Infinite® readers or software, please contact PerkinElmer technical support.

Recommended Optics

	Product number	Wavelength
Excitation	1420-5680	531/25 nm or similar
Emission	1420-5860	590/10 nm or similar

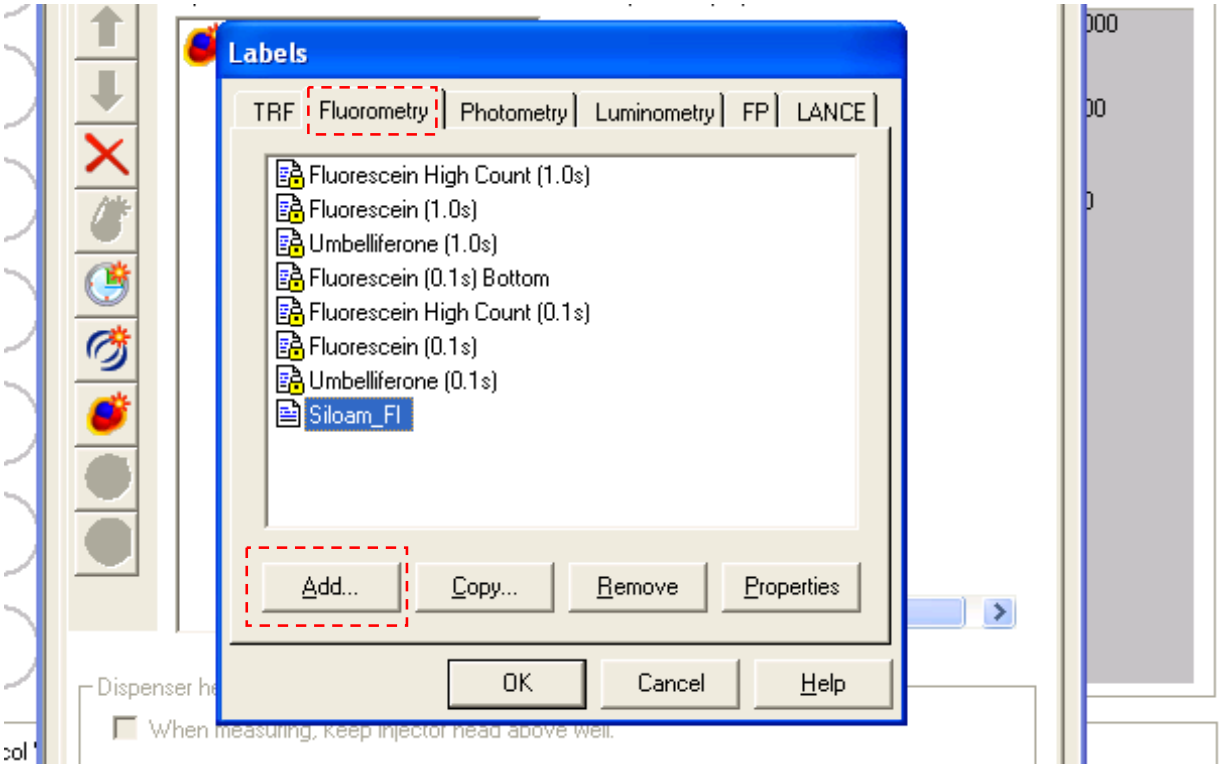
Note: Please refer to Spectra of OptiGlow™ substrate in General Reader Setup Guide under Optimiser™ Technology page for selecting filters.

Instrument Setup

Turn on the plate reader, and open up PerkinElmer 2030 Manager. Please refer to reader instruction manual for detail operation.

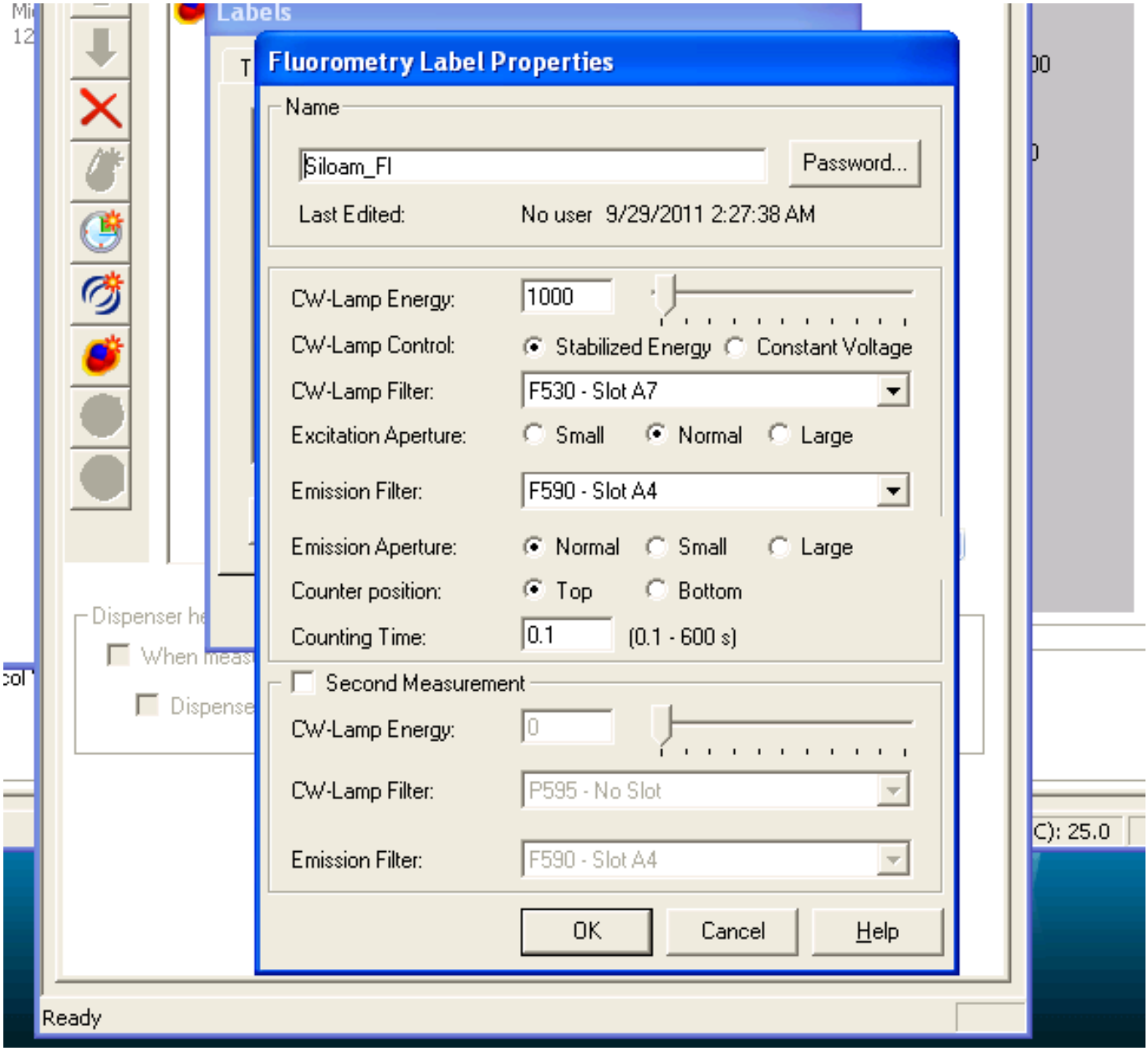
Step 1- Edit Fluorometry Label Properties

In panel of "Labels", choose "**Fluorometry**", and add a new label file.



In the new Label, select or input the properties as listed below:

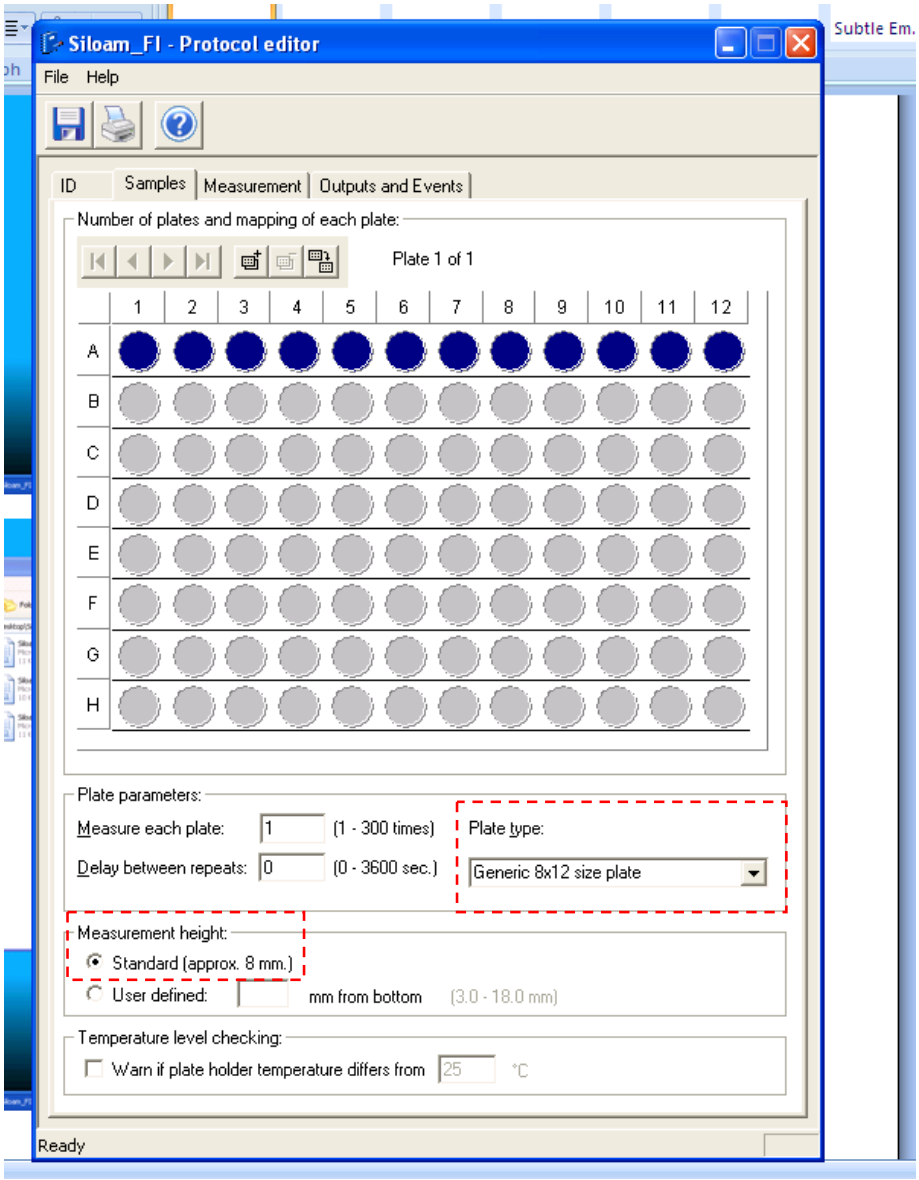
CW-Lam Energy: 1000
CW-Lamp Control: Stabilized Energy
CW-Lamp Filter: Select the appropriate excitation filter
Excitation Aperture: Normal
Emission Filter: Select the appropriate emission filter
Emission Aperture: Normal
Counter position: Top
Counting Time: 0.1



Note: For VICTOR X reader, the absolute value of fluorescence intensity is relative to the setting of CW-Lamp Energy and Counting Times. But it won't affect the signal/noise ratio and the assay performance.

Step 2- Edit the Protocol

Open the "Protocol Editor", select "**Generic 8x12 size plate**" for Plate type. Select "**Standard**" for Measurement height.



Step 3- Verification with Positive Control Solution

Material:

1) Siloam's SAv-HRP (cat# OMR-HRP). *Note: Any HRP conjugate with concentration greater than 1 µg/mL can be used for this test with following experimental protocol.*
2) Siloam's OptiGlow™ substrate.
3) One Optimiser™ Microplate.

Positive Control Preparation and Loading:

In a clean plastic tube, add 50 µL of OptiGlow™-A, 50 µL of OptiGlow™-B, 1 µL of OptiGlow™-C, and 1 µL of supplied SAv-HRP stock solution, mix well, and wait for 2 minutes. The substrate will be fully developed and stable for hours. Load 4 µL of mixture into one well *(well A1 is used in this instruction)* of Optimiser™ microplate and wait until the well is empty (do not use pad/holder)

Signal Reading:

Follow the setting in step 1 and 2, read well A1 and A2. Below is a typical data* from a VICTOR X reader.

	A1	A2
RFU	51283	190

**The actual value of the reading may vary between readers.*

Technical Assistance: If you require assistance, please contact Siloam Biosciences, Inc. Technical Support at +1 (513) 429-2976 or techsupport@siloambio.com.

Additional technical assistance is available under the Technical Support tab on the Siloam Biosciences web site (http://siloambio.com/).

- Using Optimiser™ Immunoassay Microplate Video
- Optimiser™ User's Guide
- Reader Settings
- Quick Reference Guide
- Frequently Asked Questions
- Application Notes

Two additional videos appear under the Technology tab of the web site.

- Optimiser™ Principles of Operation
- Running an Assay with Optimiser™

SILOAM
biosciences

Better Immunoassays Through Innovative Microfluidics

Siloam Biosciences, Inc.
413 Northland Blvd., Cincinnati, OH 45240
USA
Phone: +1 (513) 429-2976
Fax: +1 (513) 429-2946
http://www.siloambio.com