**Bio-Rad
Laboratories, Inc.**

Release Notes for Rare Cell Analysis Software

Version 1.0

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Contents

Introduction

Rare Cell Analysis Software allows the users of Celselect Slide Enumeration Assays to analyze images from slides containing stained target cells. The images can be collected from any fluorescent microscopes that do the following:

- Output .BMP, .JPG, .PNG, and .TIFF image sets

- Implement image naming conventions that differentiate channels and have indexed image sets

Supported Operating Systems

Rare Cell Analysis Software was developed for use on both Mac and Windows operating systems. Bio-Rad™ supports the following versions:

Mac: Monterey 12.5 and 12.6

Windows: 10 and 11

Installing or Upgrading the Software

To install the software on a Mac

1. Open a web browser and navigate to bio-rad.com.

2. Log into the website with your Bio-Rad username and password.

3. In the Search field, enter CelSelect Slide Enumeration Indirect Stain Kit and click the Search icon.

4. Click Celselect Slide Enumeration Indirect Stain Kit to open the corresponding page.

5. Scroll to the Download section and locate Rare Cell Analysis Software for a Mac OS, and then click Download Software.

6. In the Software Download window, select the *I agree with the compliance requirements* checkbox, and then click Download.

7. Right click on the .pkg file and click Open.

    Important: Do not double click the .pkg file or the installation is canceled.

8. Follow the installation instructions and accept the default settings.

9. To launch the software, navigate to Finder > Applications > Rare Cell Analysis Software and double click Rare Cell Analysis Software.

10. After reading the End User License Agreement (EULA), click Accept.

To install or upgrade the software on a Windows OS

1. Verify if the software is already installed:

    a. In the Windows search field, enter Add or Remove Programs, and then click Add or Remove Programs.

    b. Under Apps and Feature, scroll through the list for Rare Cell Analysis Software and do one of the following:

       - If Rare Cell Analysis Software is not installed, continue to step 2

       - If an older version of Rare Cell Analysis Software is installed, uninstall the program and then continue to step 2

2. Download the software executable:

    a. Open a web browser and navigate to bio-rad.com.

    b. Log into the website with your Bio-Rad username and password.

    c. In the Search field, enter CelSelect Slide Enumeration Indirect Stain Kit and click the Search icon.

    d. Select Celselect Slide Enumeration Indirect Stain Kit to open the corresponding page.

    e. Scroll to the Download section and locate Rare Cell Analysis Software for Windows, and then click Download Software.

    f. In the Software Download window, select the *I agree with the compliance requirements* checkbox, and then click Download.

       A zip file is downloaded and appears in your Downloads folder. The download process can take a few minutes.

3. Extract the files in the zip file:

   a. Open the Downloads folder on the computer and select the RareCellAnalysis.UWP_1.0.0.0 zip file.

   b. Right click the zip file and select Extract All.

   c. Select a destination folder.

   d. Select the *Show extracted files when complete* checkbox and click Extract.

4. Install the certificate:

   a. Open the folder containing the extracted files and locate the .cer file.

   b. Right click on the .cer file and click Install Certificate.

   c. For Store location in the Certificate Import Wizard, select Local Machine and click Next.

   d. At the prompt, click Yes.

   e. Select *Place All certificates in the following store* and click Browse.

   f. Select Trusted Root Certification Authorities and click OK.

   g. Click Next and then click Finish.

   A message appears, advising that the import was successful.

5. Install the software dependencies and the software:

   a. Double click the following files to install the dependencies:

   - Microsoft.NET.CoreFramework.Debug.2.2.appx

   - Microsoft.NET.CoreRuntime.2.2.appx

   b. Double-click RareCellAnalysis.UWP_1.0.0.0_x64.msixbundle, and then click Install to install the software.

   Important: By default, this application does not have permission to access the active file system. If this setting is not enabled, you are prompted to enable it when the software is launched. If the settings are changed you can re-enable file access by navigating to Windows Settings > Privacy > File system, and then selecting the image, template, and result file types to enable access for Rare Cell Analysis Software.

   c. Read the EULA and then click Accept.

New Features

Image Analysis Capability from Multiple Imaging Systems

The software allows you to analyze images obtained from multiple models of scanning fluorescent microscopes. The following image file types are supported:

BMP
JPG
PNG
TIFF

Note the following:

- Images must be channel separated.

- Image sets must be indexed for proper orientation and edge analysis.

Up to Six Fluorescence Channels for Image Analysis

You can process image sets with up to six fluorescence channels, including brightfield, and you can incorporate data from each channel into the results and analysis.

Cell Data Graphical Output

Using the graphing function, you can compare fluorescence intensities, aspect ratio, diameter, length, and perimeter of cell populations identified by the software. You can also highlight specific target cells and gate cells based on variables that can distinguish target populations.

Intuitive Workflow and Adjustable Parameters

With simple input parameters that you can adjust, the software identifies objects that are stained with labels of interest. You can then analyze those objects with applied fluorescent filters and identify a target cell population based on simple and relevant cell features, such as morphology or fluorescent label intensity. You can also save the settings to apply with future data sets or continue to adjust for additional optimization.

Updated PDF Report

The PDF report includes a summary of basic results, including the cell count and concentration, and you can add custom information into the report headings. The new report format incorporates the following:

- An overlay of a composite image of all channels, including brightfield

- The location of each target cell within the slide

- A summary of data about each confirmed cell

Known Issues

When using Rare Cell Analysis Software, you might encounter any of the following issues:

- On a Windows computer, the software does not function correctly unless the dependency files are installed.

  Workaround: To ensure the software registers the files, after you download the zip file you must extract the contents into a folder location that you can access during installation. Do not separate the files after they are extracted from the zip file.

- The horizontal scroll bars might not appear on a Mac computer.

  Workaround: On the Menu bar, click Apple Menu > System Preferences. Select General and under Show scroll bar, select Always.

- If you do not save the template files and result files before you exit the software, the specifications set for both are lost.

  Workaround: After you set the specifications, save the files before you exit the software.

- On a Windows computer, you must enable the software to open image files, template files, and result files.

  Workaround: During the initial installation, the software prompts you to enable system access. If you select the wrong option, or if you change the access accidentally, you can grant it again through the computer settings. See the installation instructions for a Windows operating system.

Documentation

For more information, see the Rare Cell Analysis Software User Guide, Version 1.0.

Contacting Technical Support

The Bio-Rad Technical Support department in the U.S. is open Monday through Friday, 5:00 AM to 5:00 PM, Pacific time.

Phone: 1-800-424-6723, option 2
Email: Support@bio-rad.com (U.S./Canada Only)

For technical assistance outside the U.S. and Canada, contact your local technical support office or click the Contact Us link at bio-rad.com.

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