CellVue™ Burgundy Cell Labeling Kit

Catalog Number: 88-0872

For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: CellVue™ Burgundy Cell Labeling Kit

REF **Catalog Number:** 88-0872

Formulation: 1 mM dye stock in ethanol

Temperature Limitation: Store at 2-8°C Light sensitive material.

LOT **Batch Code:** Refer to vial

Use By: Refer to vial

Description

CellVue® dyes are lipophilic dyes that can be used to label the cell membrane for the purpose of identifying and tracking labeled cells. Cell labeling is rapid and stable and can be combined with fluorescently labeled antibodies and other markers of cellular function for flow cytometric analysis and fluorescent microscopy. The Mini CellVue® Kits are supplied with one vial of dye stock (1 mM in ethanol) and one vial of labeling vehicle (Diluent C).

CellVue® Burgundy is a far-red/near-infrared fluorescent cell labeling reagent. It is optimally excited at 683 nm and has a peak emission of 707 nm. CellVue® Burgundy can be excited by the red laser line (633 nm), however, it can be detected equally in filter sets designed for Alexa Fluor® 700 and APC-eFluor® 780 or similar fluorochromes. Therefore, it is not recommended to use antibodies conjugated to these fluorochromes when using CellVue® Burgundy. CellVue® Burgundy can be used in combination with APC.

Applications Reported

CellVue® Burgundy Cell Labeling Kit has been reported for use in flow cytometric analysis, microscopy, imunocytochemistry, and cell labeling.

Applications Tested

CellVue® Burgundy has been tested by flow cytometric analysis of mouse spleen cells labeled with a final concentration of 2 µM. Labeling with CellVue® dyes should be done before staining with antibodies. Please see the enclosed protocol for suggested labeling conditions. It is highly recommended that the concentration and labeling conditions be carefully determined by each investigator for optimal performance in the assay of interest.

References

Roy EJ, Sivaguru M, Fried G, Gray BD, Kranz DM. Imaging membrane intercalating near infrared dyes to track multiple cell populations. J Immunol Methods. 2009 Aug 31;348(1-2):18-29.

Westhorpe CL, Zhou J, Webster NL, Kalionis B, Lewin SR, Jaworowski A, Muller WA, Crowe SM. Effects of HIV-1 infection in vitro on transendothelial migration by monocytes and monocyte-derived macrophages. J Leukoc Biol. 2009 Jun;85(6):1027-35.

Related Products

00-4501 CellVue Diluent C (For CellVue™ Cell Labeling Kits)

Legal

CellVue® is a registered trademark of PTI Research, Inc. Patent http://www.mtarget.com/mm5/pdfs/patents.pdf

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invitrogen

CellVue™ Labeling Kit Protocol

Protocols: CellVue™ Kit General Cell Labeling

Experimental Procedure

Note: All procedures should be carried out at room temperature. No azide or other metabolic inhibitors should be present during labeling.

1. Wash cells one time with serum-free media to remove serum proteins and lipids that may interfere with cell labeling.
2. Carefully discard the supernatant, leaving no more than 25 µL of residual media on the pellet.
3. Gently resuspend cells at $2x10^7$ cells/mL with Diluent C. Do not vortex, pipette several times to be sure cells are in a single-cell suspension.
4. Immediately before labeling, prepare a 2X working solution of dye in Diluent C. For a final labeling concentration of 2 µM, prepare a 4 µM solution by adding 4 µL of the 1 mM dye stock to 1 mL of Diluent C. To ensure uniform labeling, never add dye stock directly to cell suspension.
5. Rapidly add 1 mL of cells to 1 mL of 2X working dye solution and immediately mix the sample by pipetting to ensure uniform labeling. The final cell concentration should be approximately $1x10^7$ cells/mL and the final dye concentration should be 2 µM.
6. Incubate the cells for 2–5 minutes, with periodic mixing. Longer incubations will result in brighter labeling, but may begin to adversely affect cell viability.
7. Stop labeling by adding an equal volume of serum and let sit for 1 minute.
8. Centrifuge cells and discard supernatant.
9. Wash cells three times with complete media (do not use Diluent C). To reduce any effect of residual dye bound to the tube, cells may be transferred to a fresh tube.
10. Count, culture or transfer cells as desired.

Note: This protocol has been tested for in vitro or ex vivo labeling of cells. Because labeling occurs as a function of the dye partitioning into the cell membrane, concentrations of dye that are too high or labeling times that are too long will result in a loss of membrane integrity and poor cell recovery. Labeling with CellVue™ dyes should be done prior to staining with monoclonal antibodies. Labeling conditions and concentrations should be carefully determined by each investigator to ensure optimal performance in the assay of interest.

Additional Diluent C can be purchased separately. Refer to Cat. No. 00-4501.

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  - Certificates of Analysis
  - Safety Data Sheets (SDSs; also known as MSDSs)

Note: For SDSs for reagents and chemicals from other manufacturers, contact the manufacturer.

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