

Agilent eLive Red

Recommended use: Agilent eLive Red reagent for nuclear labeling, and live cell count/proliferation

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

Product information

Catalog number: 8711003

Size and concentration: 50 μL /vial at 1,000x in DMSO
Each vial provides sufficient quantity for 100 to 200 tests
(1 test: 1 well of a 96-well microplate)

Storage conditions

Upon receipt, store at 2 to 8 $^{\circ}\text{C}$ and protect from exposure to light.

Description

The Agilent eLive Red dye is used for labeling the nuclei of live cells in diverse types of assays. This dye is membrane-permeable and becomes fluorescent only when bound to DNA. It is nontoxic and can be left in the growth medium throughout the entire course of the assay.

These reagents have been validated for use with the Agilent xCELLigence RTCA eSight live-cell analysis imaging and impedance system.

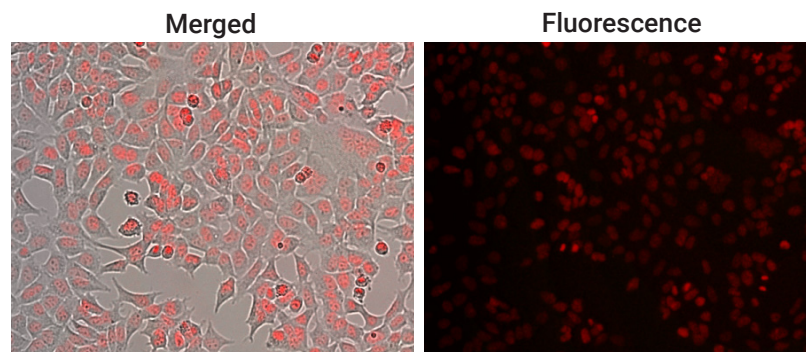


Figure 1. Agilent eLive Red + optional verapamil in HEK 293A cells. Note that staining by eLive dyes is localized to the nuclei.

Precautions

See the [Safety Data Sheet](#)

Recommended protocol

Required materials

- Agilent eLive Red
- Agilent xCELLigence RTCA eSight instrument
- Agilent E-Plate VIEW 96

Procedure

1. Prepare growth medium containing eLive dye at a final concentration of 1x (diluted down from its original concentration of 1,000x). Add 50 μ L of this solution to each well of an E-Plate VIEW 96.
2. Place the plate in the RTCA eSight instrument inside the incubator and take a background impedance reading.
3. Prepare cell suspension using the same growth medium that contains 1x eLive dye. To each well add the appropriate number of cells in 100 μ L.

Example: For HT-1080 cells, add 6,000 cells/100 μ L. This will give a final seeding of 6,000 cells/well in 150 μ L.

4. Allow cells to settle in the plate for 30 minutes at room temperature.
5. Place the plate in the RTCA eSight instrument and monitor cell adhesion and proliferation by measuring impedance and acquiring images at the desired temporal frequency. The recommended time between scans is 15 minutes for impedance and 2 hours for imaging. Although the exposure length for fluorescent image acquisition may need to be optimized for each cell line, a good starting point for eLive Red is 300 ms in the red channel of the xCELLigence RTCA eSight.

Addition of treatment

6. If attempting to monitor the cellular response to a treatment such as a drug or effector cells, simply continue to include the eLive dye at a concentration of 1x whenever the medium is replaced or supplemented.

Notes

- The intensity of fluorescent nuclear staining by eLive dyes varies from one cell type to the next. To increase the intensity of the signal, please try one or more of the following:
 - Increase the duration of the exposure above 300 ms.
 - Increase the final concentration of the eLive dye from 1x to 2x.
 - Include verapamil (an efflux pump inhibitor) in the growth medium. Although the optimal concentration of verapamil varies by cell type, the recommended range is 10 to 100 μ M.

- The fluorescent emission spectrum of the eLive Red dye partially overlaps with the blue collection channel of RTCA eSight. Thus, if being used in conjunction with a blue probe, the dye has the potential to make the intensity of the blue probe appear artificially high. This spillover/bleed-through into the blue channel is easily corrected for using the spectral unmixing tool in the RTCA eSight software. For the protocol, please refer to the RTCA eSight user manual.

Related products

Product	Part Number
Live Cell/Proliferation	
eLive Green	8711003
eLive Red	8711004
Verapamil (eLive Enhancer)	8711038
Apoptosis	
eCaspase-3 Green in PBS	8711005
eCaspase-3 Blue in PBS	8711027
eAnnexin V Green	8711006
eAnnexin V Red	8711007
eAnnexin V Blue	8711026
Cytotoxicity/Viability	
eTox Green	8711008
eTox Red	8711009
Lentiviruses	
eLenti Green	8711010
eLenti Red	8711011
eLenti Blue	8711012
Agilent RTCA Instrument	
xCELLigence RTCA eSight bundle 380601600	
Agilent E-Plates	
E-Plate VIEW 96 (6 plates) 300601020	
E-Plate VIEW 96 (36 plates) 300601030	

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