

CytoTrack[™] Cell Proliferation Assays



Bio-Rad's CytoTrack Cell Proliferation Assays can track up to ten cell generations in dividing cells. Using a proprietary chemistry, the dye reacts with intracellular proteins and is retained in the cell with minimal efflux. As cell division occurs, the dye is successively halved and the different generations can be determined based on the decrease in fluorescence intensities.

With CytoTrack Cell Proliferation Assays you can:

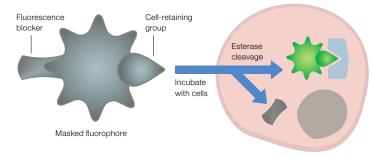
- Benefit from reduced efflux of dye compared to CFDA-SE
- Add the dye directly to culture medium or use with buffer
- Use with standard fixatives and permeabilization buffers
- Easily combine with other fluorescent markers for multicolor cell analysis

Visit bio-rad.com/web/CytoTrack1 for more information.

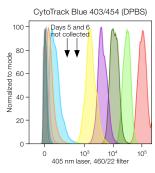


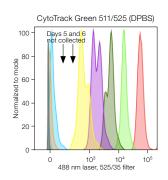
Accurately Assess Cell Proliferation

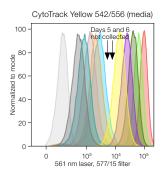
CytoTrack Cell Proliferation Assays are designed to effectively label intracellular proteins without the efflux usually seen with 5(6)-carboxyfluorescein diacetate succinimidyl ester (CFDA-SE). The CytoTrack cell-permeable dye is initially nonfluorescent and becomes fluorescent as intracellular esterases cleave the fluorescence blocker moiety. The cell-retaining group of the CytoTrack Dye will covalently bind to intracellular proteins and remain inside the cell during cell division. As the cell divides, the fluorescence intensity is successively halved and up to ten generations can be resolved.

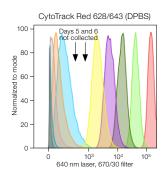


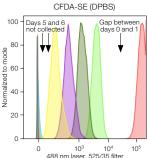
The fluorescence blocker is cleaved from the fluorophore and the cell-retaining group upon cell entry. The cell-retaining group then covalently binds to intracellular proteins, allowing the fluorophore to remain in the cell during division.











Day 0: Far right peak Days 1–10: Peaks in between Negative: Far left peak

CytoTrack and CFDA-SE performance on the ZE5™ Cell Analyzer. 1x CytoTrack solution in either cell culture media or buffer was added to 1 x 10⁶ Jurkat cells/ml. Cells were incubated in the dark at room temperature for 15 min, then washed and resuspended with cell culture media or buffer. Half were run on the ZE5 Cell Analyzer (day 0) and the other half left to grow. Each day, half the sample was removed to run on the ZE5 Cell Analyzer and the cell culture was replenished. DPBS, Dulbecco's phosphate buffered saline.

Ordering Information

Catalog Number	Description	Maximum Excitation, nm	Maximum Emission, nm	Optimal Excitation Laser, nm	S3e [™] Cell Sorter	ZE5 Cell Analyzer	ZOE [™] Fluorescent Cell Imager
1351202	CytoTrack Blue 403/454	403	454	405	•	•	
1351203	CytoTrack Green 511/525	511	525	488	•	•	
1351204	CytoTrack Yellow 542/556	542	556	532	•	•	
1351205	CytoTrack Red 628/643	628	643	633 or 640	•	•	

Each kit includes 4 vials of dye and 1 vial of dimethyl sulfoxide for 200 cell proliferation tests.



Bio-Rad Laboratories, Inc.

Life Science Group Web site bio-rad.com USA 1 800 424 6723 Australia 61 2 9914 2800 Austria 43 01 877 89019 Belgium 32 03 710 53 00 Brazil 55 11 3065 7550 Canada 1 905 364 3435 China 86 21 6169 8500 Czech Republic 36 01 459 6192 Denmark 45 04 452 10 00 Finland 35 08 980 422 00 France 33 01 479 593 00 Germany 49 089 3188 4393 Hong Kong 852 2789 3300 Hungary 36 01 459 6190 India 91 124 4029300 Israel 972 03 963 6050 Italy 39 02 49486600 Japan 81 3 6361 7000 Korea 82 2 3473 4460 Mexico 52 555 488 7670 The Netherlands 31 0 318 540 666 New Zealand 64 9 415 2280 Norway 47 0 233 841 30 Poland 36 01 459 6191 Portugal 351 21 4727717 Russia 7 495 721 14 04 Singapore 65 6415 3188 South Africa 36 01 459 6193 Spain 34 091 49 06 580 Sweden 46 08 555 127 00 Switzerland 41 0617 17 9555 Taiwan 886 2 2578 7189 Thailand 66 2 651 8311 United Arab Emirates 971 4 8187300 United Kingdom 44 01923 47 1301

Bulletin 6524 Ver C US/EG 18-0374 0518 Sig 0118

