

# CytoTrack™ Cell Proliferation Assay Kits



Bio-Rad's CytoTrack Cell Proliferation Assays are designed to efficiently stain live cells. Using a proprietary chemistry, the dye reacts with primary amines and is retained in the cell with minimal efflux, allowing up to ten cell divisions to be resolved. As cell division occurs, the dye is successively halved and the different generations can be determined based on the decrease in fluorescence intensities.

### Key Benefits of CytoTrack Cell Proliferation Assay Kits

- **Resolve up to 10 generations** — reduced efflux of dye between generation 0 and 1
- **Save time** — add the CytoTrack dye directly into culture medium
- **Avoid wasting reagents** — easy-to-use vials ensure only the amount required is reconstituted
- **Easily incorporate a CytoTrack dye into a multicolor flow cytometry experiment** — 4 different dyes are available with emission wavelengths from blue to far red

For more information, visit [www.bio-rad.com/web/CytoTrack1](http://www.bio-rad.com/web/CytoTrack1).

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## Accurately Assess Cell Health

Using a proprietary dye with a fluorescence blocker and cell-retaining group, the 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). As a cell-permeable dye, the CytoTrack dye enters a cell as a nonfluorescent dye 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 (Figure 1). As the cell divides, the fluorescence intensity is successively halved and up to ten generations can be resolved (Figure 2).

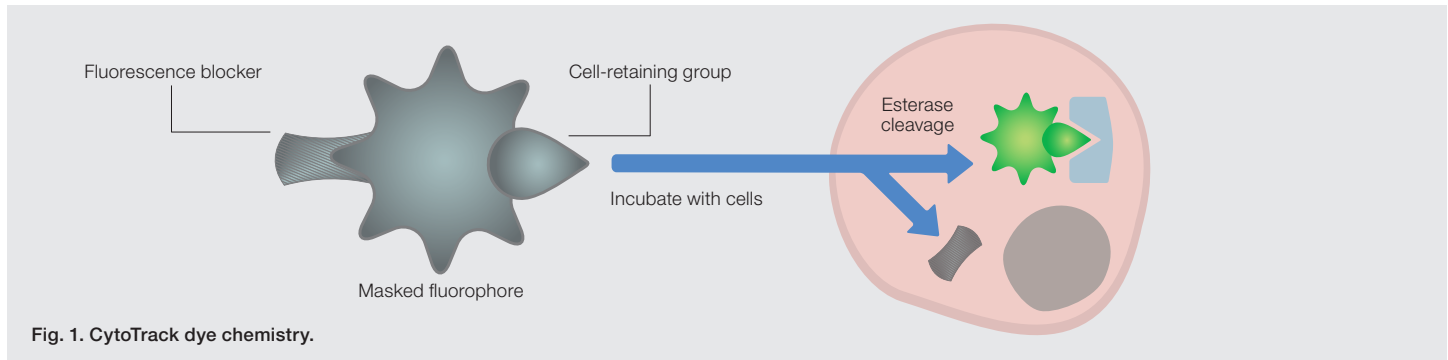


Fig. 1. CytoTrack dye chemistry.

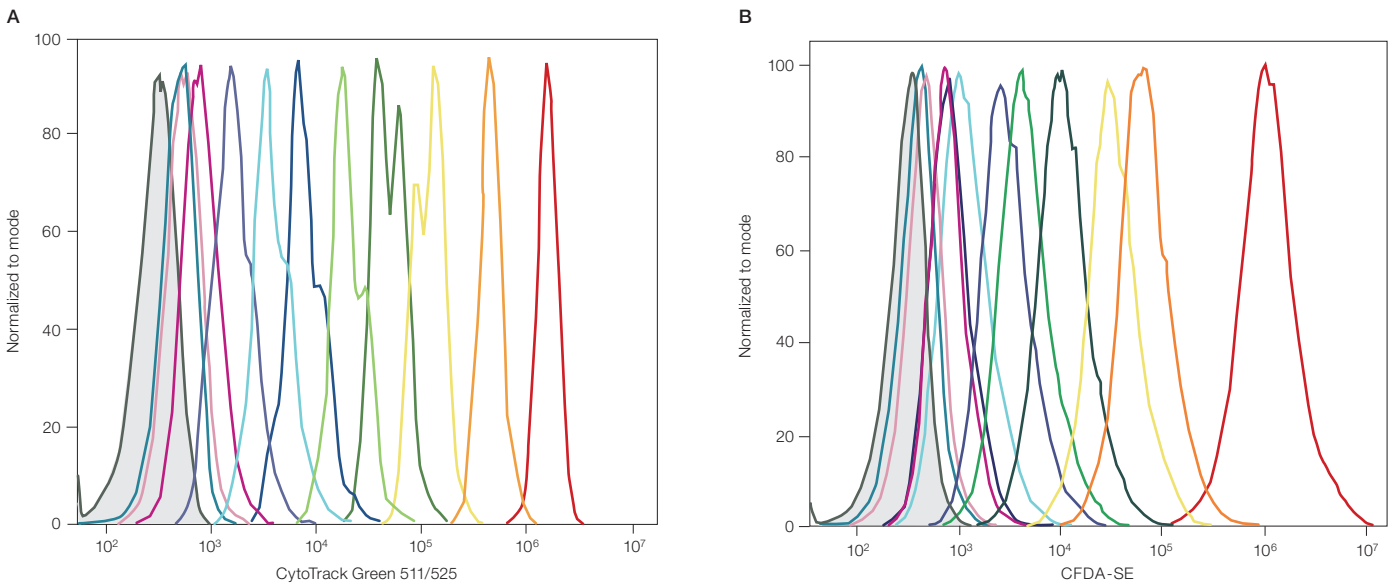


Fig. 2. Excellent resolution of ten cell generations using CytoTrack Green 511/525 (A) compared to CFDA-SE (B).

## Ordering Information

Catalog Number	CytoTrack Cell Proliferation Assay Kit	Excitation Maximum, nm	Emission Maximum, nm	Optimal Excitation Laser, nm
135-1202	CytoTrack Blue 403/454	403	454	405
135-1203	CytoTrack Green 511/525	511	525	488
135-1204	CytoTrack Yellow 542/556	542	556	532
135-1205	CytoTrack Red 628/643	628	643	633 or 640



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