Long-term Fluorescent Labeling

CYTO-ID® Red Long-term Cell Tracer Kit (ENZ-51037)

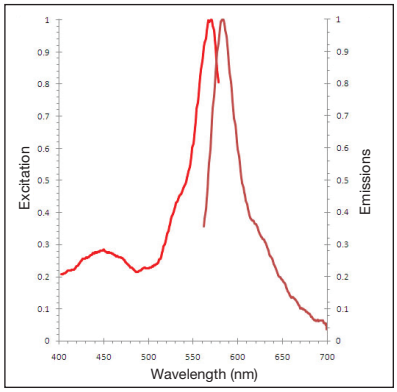
Live Cell Fluorescent Labeling Over Extended Time Periods with No Apparent Toxic Effects

The cell tracer kit uses proprietary non-covalent cell labeling technology to stably incorporate a red fluorescent dye into the cell's plasma membrane. The dye is well retained by cells for up to 96 hours after loading, and is passed to daughter cells upon mitosis.

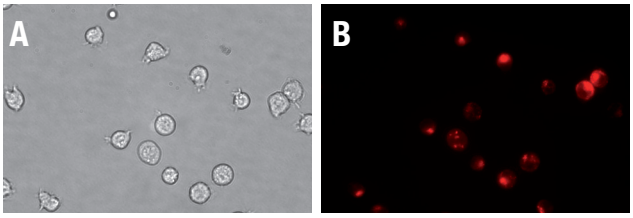
Since the dye does not covalently modify proteins within the cells, normal physiological responses are well preserved. CYTO-ID® Red Tracer Dye fluorescence is independent of pH within normally encountered physiologic ranges and fluorescence intensity per cell is typically unaffected by the ultimate pattern of dye distribution. The CYTO-ID® Red Tracer Dye is not toxic to cells, as determined using the benchmark MTT cell viability assay. The kit is suitable for tracing cell lineages, as well as assaying proliferation, precursor frequency, chemotaxis, migration, phagocytosis, and cell- and antibody-mediated cytotoxicity. Analysis of labeled and unlabeled cell populations over time by flow cytometry or microscopy is also feasible.

- Allows dual labeling with a variety of CELLESTIAL® fluorescent probes
- Minimal transfer of fluorescence from dye-labeled to unlabeled cells
- Suitable for long-term cell viability, cytotoxicity, cell adhesion, cell migration and cell-cell fusion assays

Spectra for the CYTO-ID® Red Tracer Dye

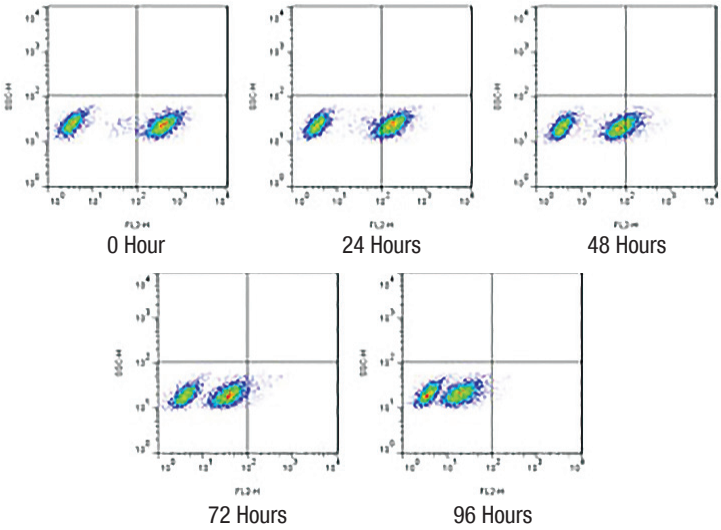


Fluorescence excitation (Ex 450 nm, 570 nm) and emission (Em 583 nm).



Composite bright-field (panel A) and fluorescence microscopy (panel B) images demonstrating staining of Jurkat cells with CYTO-ID® Red Tracer dye. Standard Texas Red filter set was used to image the membrane-bound signal.

Analyze Dye-labeled and Unlabeled Cell Populations by Flow Cytometry



Flow Cytometry analysis of fluorescence of mixed population of Jurkat cells over time. Jurkat cells stained with CYTO-ID® Red Tracer Dye were mixed with an unstained population of Jurkat cells and incubated over a 96-hour period. Unstained cells (left), stained cells (right). As the cells divide, the fluorescence signal decreases in the stained population.

RELATED PRODUCTS	
PRODUCT NAME	**PRODUCT #**
NUCLEAR-ID® Green Cell Cycle Kit	ENZ-51014
NUCLEAR-ID® Green Chromatin Condensation Detection Kit	ENZ-51021
MITO-ID® Green Detection Kit	ENZ-51022

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