ORGANELLE-ID-RGB® III assay kit

Mixture of fluorescent dyes for detection of endoplasmic reticulum, Golgi apparatus and nucleus

Compared with other commercially available dyes for labeling Golgi bodies, the green dye component of the ORGANELLE-ID-RGB® III detection reagent is more faithfully localized to the Golgi apparatus, with minimal staining of the endoplasmic reticulum. The red dye component of the reagent stains the endoplasmic reticulum with high fidelity and is specifically designed for use with green fluorescing probes. ORGANELLE-ID-RGB® III assay kit is validated with human cervical carcinoma cell line HeLa, human T-lymphocyte cell line, Jurkat, canine kidney cell line MDCK, and human bone osteosarcoma epithelial cell line U2OS. The kit should also be suitable for identifying Golgi body and endoplasmic reticulum perturbing agents and thus can be a useful tool for examining the transport and recycling of molecules from the GA to ER in cellular secretory pathways.

Citations: 5 View Online »

- Assay Golgi and ER dynamics in live cells
- Highly resistant to photo-bleaching, concentration quenching and photoconversion
- Identify modulators of secretory membrane traffic and organelle integrity

Ordering Information Order Online »

ENZ-51032-K100	1Kit

Manuals, SDS & CofA View Online »

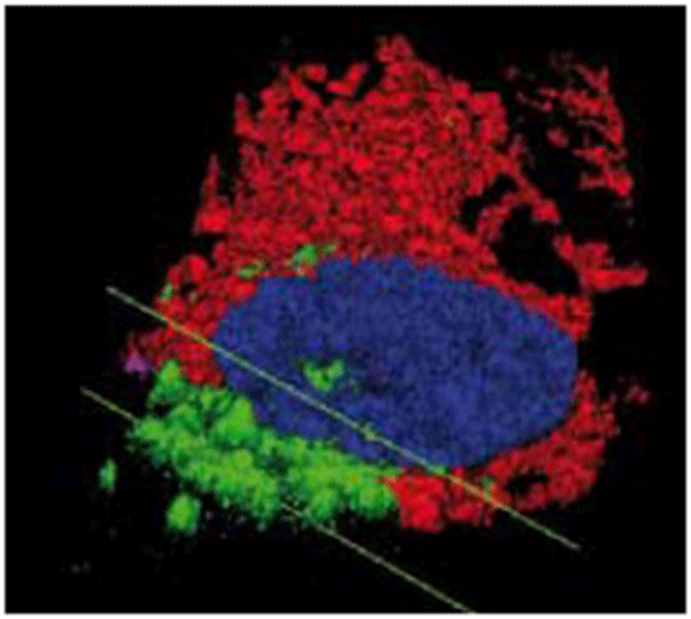

Figure 2: 3D Imaging of ER (red) and Golgi body (green) displayed relative to nucleus (blue). Three-dimensional reconstruction of the spatial relationship between the Golgi body and the endoplasmic reticulum using a structured illumination method. This was accomplished with the Apotome device from Carl Zeiss, Inc. This imaging hardware enabled creation of optical sections through the cell using a conventional wide field fluorescence microscope, for improved resolution along the optical axis. The optical sections were then used to create a 3-D reconstruction of the endoplasmic reticulum (red) and Golgi body (green), enabling display in their proper spatial context relative to the nucleus (blue).

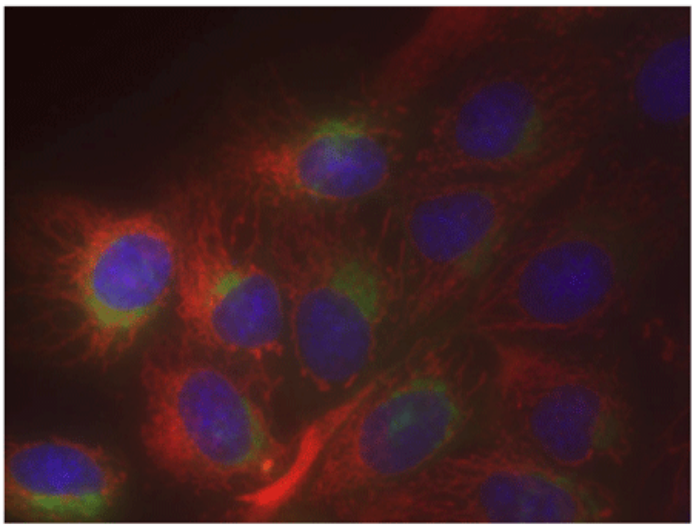

Figure 1: ORGANELLE-ID-RGB® III kit staining of MDCK epithelial cells. The ER-ID® Red, GOLGI-ID® Green and Hoechst 33342 (blue) dyes highlight their respective subcellular targets with high dependability.

Handling & Storage

Use/Stability	With proper storage, the kit components are stable for 1 year from date of receipt.
Handling	Protect from light. Avoid freeze/thaw cycles.
Short Term Storage	-20°C
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	Fluorescence microscopy, Fluorescent detection
Application Notes	The ORGANELLE-ID-RGB® III assay kit contains Golgi apparatus-selective, endoplasmic reticulum-selective and nucleus-selective dyes suitable for live cell staining. The kit should also be suitable for identifying Golgi body and endoplasmic reticulum perturbing agents and thus can be a useful tool for examining the transport and recycling of molecules from the Golgi apparatus to endoplastic reticulum in cellular secretory pathways.
Contents	ORGANELLE-ID-RGB® Reagent III (lyophilized), 1 vial 10X Assay Buffer 1, 15 ml 50X Assay Buffer 2, 1.2 ml
Quality Control	A sample from each lot of ORGANELLE-ID-RGB® III assay kit is used to stain HeLa cells, using the procedures described in the user manual. The selectivities of the red, green and blue stains are evident.
Quantity	100 assays. For detection of the Golgi apparatus, endoplasmic reticulum and nucleus by microscopy.

Technical Info / Product Notes

The ORGANELLE-ID-RGB® III Assay Kit is a member of the CELLESTIAL® product line, reagents and assay kits comprising fluorescent molecular probes that have been extensively benchmarked for live cell analysis applications. CELLESTIAL® reagents and kits are optimal for use in demanding cell analysis applications involving confocal microscopy, flow cytometry, microplate readers and HCS/HTS, where consistency and reproducibility are required.

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