GOLGI ID® Green assay kit

Dependably localizes to Golgi apparatus with minimal staining of ER

The GOLGI ID® Green assay kit contains a Golgi apparatus-selective dye suitable for live cell, or aldehyde-fixed cell staining. Compared with other commercially available dyes for labeling Golgi bodies, GOLGI ID® Green dye is more faithfully localized to the target organelle, with minimal staining of the endoplasmic reticulum. Micromolar concentrations of GOLGI ID® Green dye are sufficient for staining mammalian cells, as 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. One important application of GOLGI ID® Green dye is in fluorescence co-localization imaging with red fluorescent protein (RFP)-tagged proteins. This is a powerful approach for determining the targeting of molecules to intracellular compartments and for screening of their associations and interactions. Many organelle-targeting probes photo-bleach rapidly, are subject to quenching upon concentration in organelles, are highly toxic or only transiently associate with the target organelle, requiring imaging within a minute or two of dye addition. Consequently, GOLGI ID® Green dye, a new green-emitting, cell-permeable small molecule organic probe that spontaneously localizes to live or fixed Golgi apparatus, was developed. GOLGI ID® Green dye can be readily used in combination with other common UV and visible light excitable organic fluorescent dyes and various fluorescent proteins in multicolor imaging and detection applications. The dye emits in the FITC region of the visible light spectrum, and is resistant to photo-bleaching, concentration quenching and photo-conversion. The kit should also be suitable for identifying Golgi body perturbing agents and thus can be a useful tool for examining retrograde flow mechanisms in cellular secretory pathways. The GOLGI ID® Green assay kit has been specifically designed for use with RFP-expressing cell lines as well as cells expressing blue, cyan or orange fluorescent proteins (BFPs, CFPs, OFPs). Additionally, the kit is suitable for use with live or fixed cells in conjunction with probes, such as labeled antibodies, or other fluorescent conjugates displaying similar spectral properties as Texas Red, or coumarin. A blue nuclear counterstain, Hoechst 33342, is provided to highlight this organelle as well.

Citations: 20 View Online »

- Novel Golgi apparatus-selective dye stains live or aldehyde-fixed cells
- Fluorescence emission is easily multiplexed with common fluorescent dyes and fluorescent proteins
- Highly resistant to photo-bleaching, concentration quenching and photo-conversion
- Stringently manufactured to control and eliminate non-specific assay artifacts

Ordering Information

Order Online »

ENZ-51028-K100	1Kit

Manuals, SDS & CofA

View Online »

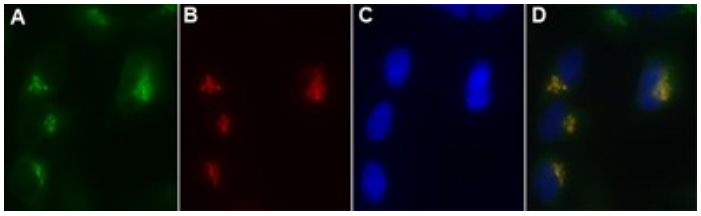


Figure 1: GOLGI-ID® Green dye co-localizes with N-acetylgalactosaminyltransferase-2, fused to red fluorescent protein (RFP). (A) GOLGI-ID® Green dye, (B) HeLa cells expressing RFP-N-acetylgalactosaminyltransferase-2, (C) Hoechst 33342 staining, (D) composite image.

Handling & Storage

Use/Stability	With proper storage, the kit components are stable up to the date noted on the product label. Store kit at -20°C in a non-frost free freezer, or -80°C for longer term storage.
Handling	Protect from light. Avoid freeze/thaw cycles.
Short Term Storage	-20°C
Long Term Storage	-80°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	Fluorescence microscopy
Application Notes	The GOLGI ID® Green assay kit is specifically designed for use in the fluorescence co-localization imaging of red fluorescent protein (RFP)-expressing cell lines as well as cells expressing blue, cyan or orange fluorescent proteins (BFPs, CFPs, OFPs), a powerful approach for determining the targeting of molecules to intracellular compartments and for screening of their associations and interactions. The kit contains a Golgi apparatus-selective dye suitable for live cell, or aldehyde-fixed cell staining.
Contents	**GOLGI ID® Green detection reagent:** 50nmoles **Hoechst 33342 nuclear stain:** 50µl **10X assay buffer 1:** 15ml **50X assay buffer 2:** 1.2ml
Quality Control	A sample from each lot of GOLGI ID® Green assay kit is used to stain HeLa cells, using the procedures described in the user manual. The selectivities of the GOLGI ID® Green dye and the Hoechst 33342 dye are evident.
Quantity	100 assays

Technical Info / Product Notes

The GOLGI ID® Green 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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