

Click-iT and Click-iT DIBO detection assays: comparison to traditional detection technologies



Green benefits

- Less hazardous: alternative to radioactive reagents; Invitrogen™ Click-iT™ and Click-iT™ DIBO Detection and Labeling Reagents eliminate hazardous metal catalysts Cu(I) and Cu(II)

Introduction

We are committed to designing our products with the environment in mind—it's part of how we enable our customers to make the world healthier, cleaner, and safer. This fact sheet provides the rationale behind the environmental claim that these products are a safer alternative to radioactive reagents.

Click-iT and Click-iT DIBO reagents provide an alternative to exposure to radiation when performing common cellular and biochemical analyses, including monitoring protein synthesis and metabolism utilizing the radioactive ³⁵S-methionine. The novel chemistries developed for Click-iT and Click-iT DIBO reagents enable detection with sensitivity similar to that of radioactivity, without the use of radioisotopes. Additionally, the hazardous metal catalysts Cu(I) and Cu(II) have been eliminated in Click-iT and Click-iT DIBO reagents.

Product description

Click-iT and Click-iT DIBO reagents support *in vivo* and *in vitro* detection and labeling of nucleic acids, proteins/peptides, and other small biomolecules for the monitoring of biological viability and activity.

Green features

Less hazardous

Traditional technologies for *in vivo* and *in vitro* labeling of nucleic acids, protein/peptides, and other small biomolecules utilize

radioactive tracers. In addition to the inherent physical and biological hazards associated with the use of radioactivity, regulatory management activities are intensive and waste storage and/or disposal costs are very high. Click-iT and Click-iT DIBO assays reduce the need for radioactive reagents in the laboratory and thus the associated burdens of reporting, record-keeping, specialized use of personal protective equipment, and special handling, storage, and disposal requirements. In addition, applying the principles of green chemistry [1], the hazardous metal catalysts Cu(I) and Cu(II) have been eliminated in Click-iT and Click-iT DIBO Detection and Labeling Reagents.

Reference

1. P. Anastas and J. Wagner, "Green Chemistry: Theory and Practice," Oxford University Press: New York, 1998.

Please see the SDSs for this line of products at thermofisher.com/clickit

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