iFluor™ 790 hydrazide

Catalog number: 1364
Unit size: 1 mg

Component	Storage	Amount
iFluor™ 790 hydrazide	Freeze (<-15 °C), Minimize light exposure	1 mg

OVERVIEW

In vivo fluorescence imaging uses a sensitive camera to detect fluorescence emission from fluorophores in whole-body living small animals. To overcome the photon attenuation in living tissue, fluorophores with long emission at the near-infrared (NIR) region are generally preferred, including widely used small indocarbocyanine dyes. Recent advances in imaging strategies and reporter techniques for in vivo fluorescence imaging include novel approaches to improve the specificity and affinity of the probes and to modulate and amplify the signal at target sites for enhanced sensitivity. Further emerging developments are aiming to achieve high-resolution, multimodality and lifetime-based in vivo fluorescence imaging. Our iFluor™ 790 is designed to label proteins and other biomolecules with near infrared fluorescence. Conjugates prepared with iFluor™ 790 have the excitation and emission spectra similar to that of indocyanine green (ICG) and the IRDye® 800 dye, with 783/814 nm excitation/emission maxima. iFluor™ 790 dye emission is well separated from commonly used far-red fluorophores such as Cy5, Cy7 or allophycocyanin (APC), facilitating multicolor analysis. This fluorophore is also useful for small animal in-vivo imaging applications or for other imaging applications that require NIR detections such as the two-color western applications with the LI-COR® Odyssey® infrared imaging system.

AT A GLANCE

Important It is important to store at <-15 °C and should be stored in cool, dark place.

It can be used within 12 months from the date of receipt.

KEY PARAMETERS

Instrument:	Fluorescence microplate reader
Excitation:	783 nm
Emission:	814 nm
Cutoff:	790 nm
Recommended plate:	Solid black

PREPARATION OF WORKING SOLUTION

iFluor™ 790 hydrazide working solution:
Add water to make iFluor™ 790 hydrazide working solution of desired concentration.

EXAMPLE DATA ANALYSIS AND FIGURES

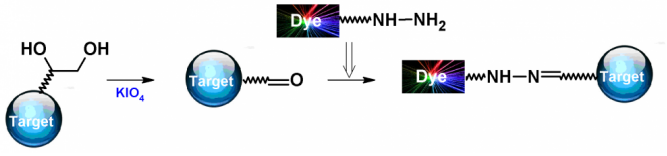

Figure 1.

Fluorescent dye hydrazine derivatives are the most popular tool for conjugating dyes to a target compound with a carbonyl group (e.g., aldehyde, carboxylic acid or activated carboxy group such as NHS ester). Fluorescent dye hydrazine derivatives are also useful for tracing neurons.

DISCLAIMER