

REACTIVE DYES FOR LABELING BIOMOLECULES

Cyanine 3-NHS Ester Pack
Cyanine 5-NHS Ester Pack

ENZ-42541

12 x 50 nmoles

ENZ-42542

12 x 50 nmoles

HIGHLIGHT

- Ideal for fluorescent labeling of proteins, antibodies, peptides and amine-modified oligonucleotides
- Fully compatible with excitation and emission filter sets employed for Cy3 and Cy5 dyes
- Bright fluorescence, with high extinction coefficients
- Stable signal intensity across a wide pH range (3 to 10)

Enzo Life Sciences' proprietary cyanine 3- and cyanine 5-N-hydroxysuccinimidyl esters (NHS esters) are high quality, reactive fluorescent dyes optimized for amine labeling. The cyanine 3 dye provides bright orange signal (~550 nm excitation, ~570 nm emission), while the cyanine 5 dye provides bright red fluorescence signal (~650 nm excitation, ~670 nm emission). The reactive groups allow the dyes to be chemically linked to either amino-alkyl-modified nucleic acids or directly to proteins and peptides. The dyes are suitable for a wide variety of biological applications including comparative genomic hybridization and expression array profiling, as commonly employed in transcriptomics. They are also suitable for labeling proteins and nucleic acids for a variety of other applications relating to proteomics and genomics. The dyes display good aqueous solubility and low non-specific binding, allowing convenient labeling and assay set-up.

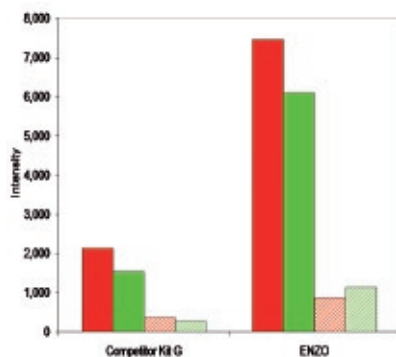


FIGURE 1: GENE-EXPRESSION. cDNA labeled with leading competitor's cyanine dye NHS esters (left) and Enzo Life Sciences' Cyanine 3- and Cyanine 5-NHS esters (right), then used to probe expression arrays. The average intensity of individual spots (solid bars) is determined as well as the background intensity. (striped bars).

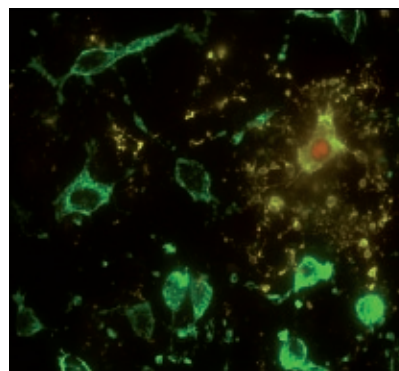


FIGURE 2: PROTEIN LABELING. Enzo Life Sciences' Cyanine 3 dye can be used in three-color experiments to show apoptotic cells (orange, labeled with cyanine 3-Annexin V conjugate) and necrotic cells (labeled with Enzo Life Sciences' Red necrosis stain). Mitochondrial morphology is highlighted in cells using a GFP-cytochrome c oxidase construct.

Dye	Excitation / Emission (nm)	Extinction Coefficient (M ⁻¹ cm ⁻¹)	Alternative to:
Cyanine 3	550 / 570	145,000	Cy3, Alexa Fluor 546, Alexa Fluor 555, TRITC, DyLight 549
Cyanine 5	650 / 670	250,000	Cy5, Alexa Fluor 647, DyLight 649

TABLE 1: The excitation and emission spectra of Enzo Life Sciences' cyanine dyes correspond to those of the commonly used fluorescent probes cited above, so there is no need to purchase additional filters.

Related Products

Product	Prod. No.	Size
5-FITC (Ultra Pure)	ENZ-52451	1 g
5(6)-TRITC (Ultra Pure)	ENZ-52452	10 mg
Sulforhodamine 101 Sulfonyl Chloride (Ultra Pure)	ENZ-52453	10 mg
AMCA-NHS (Ultra Pure)	ENZ-52454	10 mg
Dansyl chloride (Ultra Pure)	ENZ-52455	100 mg
Monobromobimane (Ultra Pure)	ENZ-52501	25 mg
Fluorescein-5-maleimide (Ultra Pure)	ENZ-52502	25 mg
GFP-Certified™ Apoptosis and Necrosis Detection Kit	ENZ-51002-25	25 Reactions
	ENZ-51002-100	100 Reactions

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