Product Data Sheet

Product Name: Cy5 hydrazide (non-sulfonated)
Cat. No.: GC15809

Chemical Properties

Cas. No.			
SMILES	CC(C1=CC=CC=C1N/2C)(C)C2=C/C=C/C=C/C3=[N+](CCCCCC(N[NH3+])=O)C4=CC=CC=C4C3(C)C		
Formula	$C_{32}H_{42}Cl_2N_4O$	M.Wt	569.61
Solubility	≥ 48mg/mL in DMSO	Storage	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

Cy5 hydrazide is a reactive dye which reacts smoothly and nearly quantitatively with various carbonyl groups encountered in biomolecules. The labeling regent is used for the labeling of aldehydes and ketones. The dye examples are proteins subjected to oxidative stress, glycoproteins pre-activated by periodate oxidation, and oligonucleotides with aldehyde moieties. Cy5 hydrazide could replace carbonyl-reactive Alexa Fluor 647 and DyLight 649 dyes. For biomolecule labeling, the labeling regent has low aqueous solubility, using of organic co-solvent to dissolve this molecular is necessary for efficient reaction. First, Cyanine dye should be dissolved in organic solvent and then added to a solution of biomolecule in appropriate aqueous buffer.

In HL-60 cells, Protein carbonylation induced by Hydrogen peroxide (H2O2) was quantitatively analyzed by using fluorescent dyes of Cy5-hydrazide dye, followed by sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE) and fluorescence

Caution: Product has not been fully validated for medical applications. For research use only.
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determination [1].

Reference:

[1] Yoshimura, T. ; Harashima, M.; Kurogi, K.; Suiko, M.; Liu, M.-C.; Sakakibara, Y. A novel procedure for the assessment of the antioxidant capacity of food components. Analytical Biochemistry, 2016, 507, 7–12.

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