Product Data Sheet

Product Name: Cy5 maleimide (non-sulfonated)
Cat. No.: GC18124

Chemical Properties

Cas. No.			
Chemical Name	6-[(2E)-3,3-dimethyl-2-[(2E,4E)-5-(1,3,3-trimethylindol-1-ium-2-yl)penta-2,4-dienylidene]indol-1-yl]-N-[2-(2,5-dioxopyrrol-1-yl)ethyl]hexanamide		
SMILES	CC1(C2=CC=CC=C2[N+](=C1C=CC=CC=C3C(C4=CC=CC=C4N3CCCCCC(=O)NCCN5C(=O)C=CC5=O)(C)C)C)C		
Formula	$C_{38}H_{45}ClN_4O_3$	M.Wt	641.24
Solubility	≥ 64.1mg/mL in DMSO, ≥ 65 mg/mL in EtOH	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 maleimide is a mono-reactive dye for selectively labeling peptides and proteins which couples with thiol groups. The labeling reagent is a common fluorophore dye with low aqueous solubility which is compatible with various instrumentation like microscopes, imagers, and fluorescence readers. Cy5 maleimide is part of the probe among the biological research. For biomolecule labeling, the labeling reagent 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. The user can generate probes with virtually any non-genetically encoded moiety of interest with the scaffold in

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hand.

G3C(Cy5) probe consists of two parts. First, a GGGC scaffold peptide is synthesized on solid phase, followed by coupling of the liberated peptide to Cy5 maleimide, while in solution [1].

Reference:
[1]. Popp, M.W. Site-Specific Labeling of Proteins via Sortase: Protocols for the Molecular Biologist. Methods in Molecular Biology,2015, 1266, 185–198.