Product Data Sheet

Product Name: Cy5 alkyne (non-sulfonated)
Cat. No.: GC15007

Chemical Properties

Cas. No.			
Chemical Name	3,3-dimethyl-1-(6-oxo-6-(prop-2-yn-1-ylamino)hexyl)-2-((1E,3E,5E)-5-(1,3,3-trimethylindolin-2-ylidene)penta-1,3-dien-1-yl)-3H-indol-1-ium chloride		
SMILES	CC(C1=CC=CC=C1N/2C)(C)C2=C/C=C/C=C/C3=[N+](CCCCCC(NCC#C)=O)C(C=CC=C4)=C4C3(C)C.[Cl-]		
Formula	$C_{35}H_{42}ClN_3O$	M.Wt	556.18
Solubility	≥ 55.6mg/mL in DMSO, ≥ 50 mg/mL in EtOH with ultrasonic	Storage	Store at -20°C
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	Cy5 alkyne (non-sulfonated)		

Background

Cy5 alkyne, with low aqueous solubility is a dye ready for the use in Click Chemistry reaction. Various molecules via Click Chemistry reaction can be attached by this deeply colored, and photostable Cy5 fluorophore. Most derivatives of non-sulfonated cyanines have low aqueous solubility except for hydrochlorides of hydrazides and amines. For biomolecule labeling, 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. Various substrates such as biomolecules, polymers, and solid surfaces which bearing azides can be used for the labeling.

In the azido-GalNAc samples, alkyne-Cy3 and alkyne-Cy5 specifically label azido-proteins. Furthermore, researches also indicate that the Cy5 and Cy3 probe-protein

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conjugates have non-overlapping fluorescence profiles and can be differentially detected within a single gel [1].

Reference:

[1] Burnham-Marusich, A. R.; Plechaty, A.M.; Berninsone, P.M. Size-matched alkyne-conjugated cyanine fluorophores to identify differences in protein glycosylation. Electrophoresis, 2014, 35(18), 2621-2625.

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