Product Data Sheet

Product Name: Cy5 azide
Cat. No.: GC12452

Chemical Properties

Cas. No.			
Chemical Name	(2E)-1-[6-(3-azidopropylamino)-6-oxohexyl]-3,3-dimethyl-2-[(2E,4E)-5-(1,3,3-trimethyl-5-sulfonatoindol-1-ium-2-yl)penta-2,4-dienylidene]indole-5-sulfonate		
SMILES	CC1(C2=C(C=CC(=C2)S(=O)(=O)[O-])[N+](=C1C=CC=CC=C3C(C4=C(N3CCCCCC(=O)NCCCN=[N+]=[N-])C=CC(=C4)S(=O)(=O)[O-])(C)C)C)C		
Formula	$C_{36}H_{47}N_6NaO_8S_2$	M.Wt	778.91
Solubility	very high in water	Storage	Store at -20°C in the dark
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 azide		

Background

Sulfo-Cy5 azide is a sulfonated, hydrophilic and highly water soluble dye for Click chemistry. Due to this features, the dye can be used for labeling biomolecules, especially useful for the labeling of delicate proteins and proteins prone to denaturation, purely aqueous conditions. Sulfo-Cy5 azide is not only a sulfonated but also a popular fluorophore. For labeling proteins and peptides, no organic co-solvent is needed. In life science, the sulfonate groups make the Cy dyes soluble in water and also reduce fluorescence-quenching which can arise from dye–dye interactions.

In mammalian cells, Sulfo-Cy5-azide was incubated with U2OS cells. Finally, the study only find that the cells expressing tRNAIle2-5S fusion RNA can be labeled and imaged with Sulfo-Cy5-azide [1].

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Reference:
[1] Li, F. ; Dong, J.; Hu, X.; Gong, W.; Li, J.; Shen, J.; Tian, H.; Wang, J. A Covalent Approach for Site-Specific RNA Labeling in Mammalian Cells. Angewandte Chemie International Edition, 2015, 54(15), 4597–4602.

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