Product Data Sheet

Product Name: Cy7 carboxylic acid (non-sulfonated)
Cat. No.: GC11206

Chemical Properties

Cas. No.			
Chemical Name	6-[(2E)-3,3-dimethyl-2-[(2E)-2-[3-[(E)-2-(1,3,3-trimethylindol-1-ium-2-yl)ethenyl]cyclohex-2-en-1-ylidene]ethylidene]indol-1-yl]hexanoic acid		
SMILES	CC1(C2=CC=CC=C2[N+](=C1C=CC3=CC(=CC=C4C(C5=CC=CC=C5N4CCCCCC(=O)O)(C)C)CCC3)C)C		
Formula	$C_{37}H_{45}ClN_2O_2$	M.Wt	585.22
Solubility	soluble in organic solvents (DMSO, DMF, dichloromethane), low solubility in water	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

Cy7 carboxylic acid is a near-infrared fluorescent dye which has low aqueous solubility. As for coupling and labeling reactions, pre-activated Cy7 NHS ester or water-soluble sulfo-Cy7 NHS ester would be considered. 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.

Cy7, together with carboxylic acid (CA) make up the model drugs. On the basis of this, the study was able to estimate the amount of Cy7 carboxylic acid on the particle through direct emission spectra measurements [1].

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Reference:
[1] Zhao, Y. ; Fay, F.; Hak, S.; Manuel Perez-Aguilar, J.; Sanchez-Gaytan, B.L.; Goode, B.; Duivenvoorden, R.; de Lange Davies, C.; Bjrky, A.; Weinstein, H.; Fayad, Z.A.; Pérez-Medina, C.; Mulder, W.J.M. Augmenting drug-carrier compatibility improves tumour nanotherapy efficacy. Nature Communications, 2016,7,11221.

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