Product Data Sheet

Product Name: Cy7.5 carboxylic acid (non-sulfonated)
Cat. No.: GC17115

Chemical Properties

Cas. No.	
Chemical Name	6-[(2E)-1,1-dimethyl-2-[(2E)-2-[3-[(E)-2-(1,1,3-trimethylbenzo[e]indol-3-ium-2-yl)ethenyl]cyclohex-2-en-1-ylidene]ethylidene]benzo[e]indol-3-yl]hexanoic acid
SMILES	CC1(C(=[N+](C2=C1C3=CC=CC=C3C=C2)C)C=CC4=CC(=CC=C5C(C6=C(N5CCCCCC(=O)O)C=CC7=CC=CC=C76)(C)C)CCC4)C
Formula	$C_{45}H_{49}ClN_2O_2$
M.Wt	685.34
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
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	Cy7.5 carboxylic acid (non-sulfonated)

Background

Cy7.5 carboxylic acid is a free un-activated NIR 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 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 mice, near-infrared labeling of the materials allowed for non-invasive imaging of the injected hydrogel. Cy7.5 carboxylic acid labeled images can demonstrate localization of the injected hydrogel to the affected kidney. Moreover, the methodology allowed direct quantification of material degradation in vivo [1].

Reference:
[1]. Rodell, C.B.; Rai, R.; Faubel, S.; Burdick, J.A.; Soranno, D.E. Local Immunotherapy via Delivery of Interleukin-10 and Transforming Growth Factor β Antagonist for Treatment of Chronic Kidney Disease. Journal of Controlled Release, 2015, 206, 131–139.

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