
Product Data Sheet

Product Name: Cy5.5 carboxylic acid (non-sulfonated)

Cat. No.: GC16132

Chemical Properties

Cas. No.

Chemical Name 6-[(2E)-1,1-dimethyl-2-[(2E,4E)-5-(1,1,3-trimethylbenzo[e]indol-3-ium-2-yl)penta-2,4-dienylidene]benzo[e]indol-3-yl]hexanoic acid

SMILES CC1(C(=[N+](C2=C1C3=CC=CC=C3C=C2)C)C=CC=CC=C4C(C5=C(N4CCCCC(=O)O)C=CC6=CC=CC=C65)(C)C

Formula $C_{40}H_{43}ClN_2O_2$ M.Wt 619.23

$\geq 213\text{mg/mL}$ in DMSO, ≥ 24 months after receipt at -20°C in the dark.

Solubility 16.73 mg/mL in EtOH with ultrasonic Storage 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°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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**

Cy5.5 carboxylic acid is an un-activated labeling reagent which has low aqueous solubility. 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.

Cyanine 5.5 carboxylic acid instead of the drug was injected into the tumors in order to visually observe the dye release by using the in vivo imaging system (IVIS). Research show that NIR irradiation could efficiently triggered drug release from the DEPT-PEG/ α -CD hydrogel in vivo [1].

Reference:

[1] Wang, X.; Wang, C.; Zhang, Q.; Cheng, Y. Near Infrared Light-responsive and Injectable Supramolecular Hydrogels for On-demand Drug Delivery. *Chemical Communications*, 2016, 52, 978–981.

Caution: Product has not been fully validated for medical applications. For research use only.

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