
Product Data Sheet

Product Name: Cy5.5 azide (non-sulfonated)

Cat. No.: GC14684

Chemical Properties

Cas. No.

Chemical Name 3-(6-((3-azidopropyl)amino)-6-oxohexyl)-1,1-dimethyl-2-((1E,3E,5E)-5-(1,1,3-trimethyl-1H-benzo[e]indol-2(3H)-ylidene)penta-1,3-dien-1-yl)-1H-benzo[e]indol-3-ium chloride

SMILES CC1(C)C2=C3C(C=CC=C3)=CC=C2[N+](CCCCC(NCCCN=[N+]=[N-])=O)=C1/C=C/C=C/C=C4C(C)(C)C5=C(C=CC=C6)C6=CC=C5N\4C.[Cl-]

Formula $C_{43}H_{49}ClN_6O$ M.Wt 701.34

Solubility ≥ 70.1 mg/mL in DMSO, ≥ 46.2 mg/mL in EtOH with ultrasonic Storage 24 months after receipt at $-20^{\circ}C$ 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 $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure **Background**

This Cy5.5 is a labeling reagent that is ready for use in Click Chemistry reaction, which is available as a 10 mM solution in DMSO. As Cy5.5 azide is a far-red emitting dye, it can replace Alexa Fluor 680, and DyLight 680. Most derivatives of non-sulfonated cyanines have low aqueous solubility except for hydrochlorides of hydrazides and amines. For biomolecule labeling, the labeling reagent has low aqueous solubility, and the use 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.

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

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In human glioblastoma U87MG cells, to assess the capability of the Cu(I)/M-dots for cell labeling Cy5.5-azide was in combination with Cu(I)/M-dots for imaging of the integrin $\alpha V\beta 3$ receptor [1].

Reference:

[1] Sun, Y. ; Hong, S.; Ma, X.; Cheng, K.; Wang, J.; Zhang, Z.; Yang, M.; Jiang, Y.; Hong, X.; Cheng, Z. Recyclable Cu(I)/Melanin Dots for Cycloadditions, Bioconjugation and Cell Labeling. Chemical Science.

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