Product Data Sheet

Product Name: Cy3-dUTP
Cat. No.: GC16524

Chemical Properties

Cas. No.	
Chemical Name	1-ethyl-2-((1E,3E)-3-(1-(6-(((E)-3-(1-((2R,4S,5R)-4-hydroxy-5-(((hydroxy((hydroxy(phosphonooxy)phosphoryl)oxy)phosphoryl)oxy)methyl)tetrahydrofuran-2-yl)-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-5-yl)allyl)amino)-6-oxohexyl)-3,3-dimethyl-5-sulfoindolin-2-yli
SMILES	O=S(C1=CC=C([N+](CC)=C(C2(C)C)/C=C/C=C(C(C)(C)C3=C4C=CC(S(O)(=O)=O)=C3)/N4CCCCCC(NC/C=C/C5=CN([C@H]6C[C@H](O)[C@@H](COP(OP(O)(OP(O)(O)=O)=O)=O)(O)=O)O6)C(NC5=O)=O)=O)C2=C1)([O-])=O
Formula	$C_{43}H_{56}N_5O_{21}P_3S_2$(free acid)
M.Wt	1135.97 g/mol (free acid)
Solubility	Soluble in DMSO
Storage	Store at -80°C,protect from 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	Cy3-dUTP

Background

Cy3-dUTP is a Cyanine3-labeled dUTP fluorescent dye. Cy3 (Sulfo-Cyanine3) is an orange-fluorescent label for protein and nucleic acid (λ_{ex}=554nm, λ_{em}=568nm). Cy3-dUTP can serve as a substrate for T4 and Taq DNA polymerases, *Escherichia coli* DNA polymerases (whole enzymes and Klenow fragments), reverse transcriptases (from AMV and M-MuLV), and terminal transferases[1][2][3].

References:
[1] Yu H, Chao J, Patek D, et al. Cyanine dye dUTP analogs for enzymatic labeling of DNA probes. Nucleic Acids Res. 1994 Aug 11;22(15):3226-32.
[2] Jiang Y, Li Z S, Jiang F S,et al. Effects of different ingredients of zedoary on gene expression of HSC-T6 cells. World J Gastroenterol. 2005 Nov 21;11(43):6780-6.
[3] Gutjahr A, Xu S Y. Engineering nicking enzymes that preferentially nick 5-methylcytosine-modified DNA. Nucleic Acids Res. 2014 May;42(9):e77.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA