

Product Data Sheet

Product Name: Pyrene phosphoramidite dU
 Cat. No.: GC14718

Chemical Properties

Cas. No. 199920-17-7

Chemical Name 3-[[[(2R,3R,5R)-5-[5-[2-(8,10b-dihydropyren-1-yl)ethynyl]-2,4-dioxypyrimidin-1-yl]-2-[bis(4-methoxyphenyl)methoxymethyl]oxolan-3-yl)amino]phosphanyl]oxypropanenitrile

SMILES CC(C)N(C(C)C)P(OCCC#N)OC1CC(OC1COC(C2=CC=C(C=C2)OC)C3=CC=C(C=C3)OC)N4C=C(C(=O)NC4=O)C#CC5=CC=C6C=CC7=

Formula $C_{57}H_{55}N_4O_8P$ M.Wt 955.04

Solubility good in dichloromethane and acetonitrile Storage 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 24 months. 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 used 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

Pyrene is a polycyclic aromatic hydrocarbon which is well-known for its ability to intercalate into DNA. Pyrene features intense blue fluorescence. Its parameters depend strongly on fluorophore microenvironment. Therefore, fluorescence spectra of pyrene are used for the extraction of structural information about the site surrounding pyrene. Two pyrenes in close proximity usually form excimers easily detectable by excimer fluorescence. Pyrene can also be a FRET donor to other fluorophores such as perylene. With this phosphoramidite, pyrene can be introduced into DNA or RNA by means of automated synthesis. This pyrene phosphoramidite contains a hydrocarbon moiety rigidly attached to deoxyuridine. This reagent allows to attach a pyrene fragment to the 5', internal, or 3' position (using universal support). This amidite requires no special handling, coupling, or deprotection conditions. Recommended diluent for it is acetonitrile. Pyrene dU amidite

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

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