

dU (Deoxyuridine) phosphoramidite

<http://www.lumiprobe.com/p/du-phosphoramidite>

dU amidite enables the addition of deoxyuridine nucleoside to the DNA chain to synthesize modified oligonucleotides. Deoxyuridine (dU) is a derivative of the nucleoside uridine and has H instead of hydroxy group at the 2'-position of the ribose. This amidite contains DMT at the 5'-end.

Oligos modification with dU affects the melting profiles of oligo duplexes via integrating 2'-deoxyuridine into nucleic acid sequences.

dU (Deoxyuridine) phosphoramidite can serve for oligonucleotide probes and as a research tool for duplex stability studies and those of DNA damage and repair mechanisms.

General properties

Appearance: white to pale yellow powder

Molecular weight: 730.79

CAS number: 109389-30-2

Molecular formula: $C_{39}H_{47}N_4O_8P$

IUPAC name: 5'-O-(4,4'-Dimethoxytrityl)-2'-deoxyuridine-3'-O-[O-(2-cyanoethyl)-N,N'-diisopropylphosphoramidite]

Solubility: good in acetonitrile, DCM

Quality control: NMR 1H , NMR ^{31}P , HPLC-MS (95%)

Storage conditions: Storage: 12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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Oligo synthesis details

Diluent: acetonitrile

Coupling conditions: standard coupling, identical to normal nucleobases

Cleavage conditions: ammonia, 2 h at room temperature

Deprotection conditions: identical to protected nucleobases