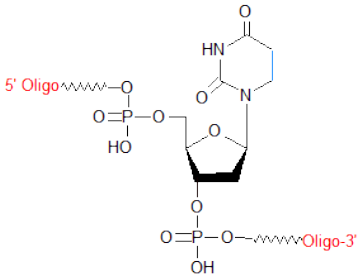
Oligo Modifications

For research use only. Not for use in diagnostic procedures for clinical purposes.

dihydro dU (5-6 DHdU)

Category	Minor Bases
Modification Code	5-6-DHdU
Reference Catalog Number	26-6683
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	292.19



dihydro dU (5-6 DHU)
[26-6683-XX]

dihydro dUracil (5-6 DHdU) modification requires the use of mild reagents for synthesis and there is an additional charge of $250 charge per order.

Dihydro dU (5,6-DHU) is primarily used in studies of irradiative DNA damage and associated repair mechanisms. In the cell, 5,6-DHU DNA lesions are formed by gamma irradiation of deoxycytosine under anoxic conditions, resulting in deamination followed by addition of hydrogen at C5 and C6 of the base. DHU is highly mutagenic, leading to C-to-T transitions at the mutation site (because DNA polymerase inserts A opposite the 5,6-DHU lesion) (1). Because DHU is recognized and removed by endonuclease III and other eukaryotic endo III homologs, DHU-modified oligos are used in model systems for studying DNA damage and repair mechanisms. **References**

1. Liu, J., Doetsch, P.W. Escherichia coli RNA and DNA polymerase bypasss of dihydrouracil: mutagenic potential via transcription and replication. *Nucleic Acids Res.* (1998), **26**: 1707-1712.