



## Product Specifications

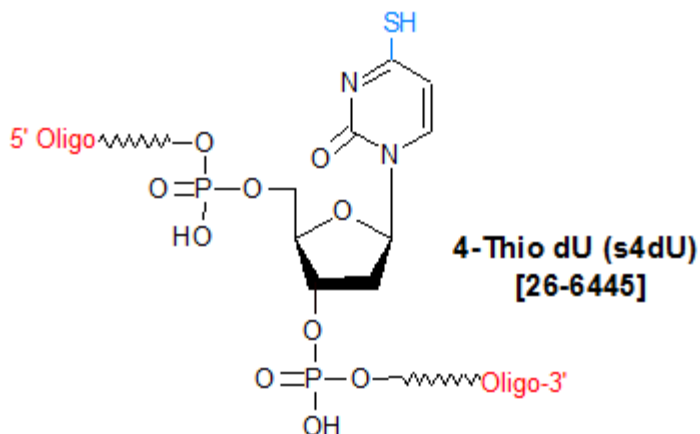
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2'-5' linked Oligos

## Oligo Modifications

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

### Thio-4 dU (s4dU)

Category	Others
Modification Code	s4dU
Reference Catalog Number	26-6445
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	306.23



6-Thio-dG, 4-Thio-dT and 4-thio-dU are very useful modifications for photo cross-linking and photoaffinity labelling experiments. Oligos containing 2-thio-dT are useful in examining protein-DNA interaction by acting as photosensitizing probes. The thiocarbonyl group in 2-thio-dT is especially interesting in that it is available to react with compounds associating with the minor groove of DNA. 2-Amino-A forms a very stable base pair with T containing three hydrogen bonds but the stability of the base pair with 2-thio-T is greatly diminished. Due to steric interactions between the 2-thio group of thymidine and the 2-amino group of 2-amino-A, the base pair contains only a single hydrogen bond. Oligos containing 2-amino-dA and 2-thio-dT exhibit high affinity for natural oligonucleotides but show little affinity for other similar oligos even of a complementary sequence.