Product Specifications

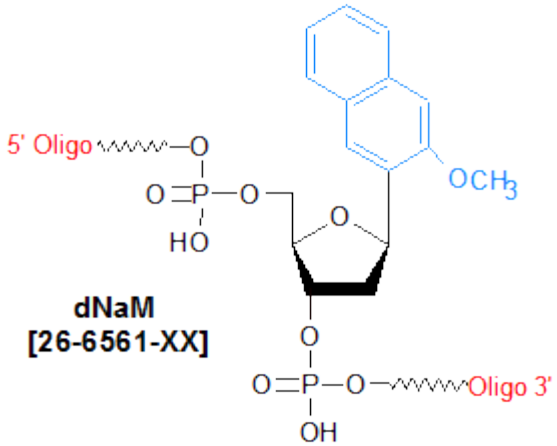
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2′-5′ linked Oligos

Oligo Modifications

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

dNaM

Category	Duplex Stability
Modification Code	dNaM
Reference Catalog Number	26-6561
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	336.74



Base pair that achieves pair recognition through hydrophobic interactions.
The dNaM and d5SICS matched pair appears to be a very interesting novel base pair. These unnatural C-nucleosides have pair recognition that rivals the A-T and G-C pairing in the natural genetic alphabet. In addition, they have been shown to be well-replicated by DNA polymerases under steady-state conditions, regardless of sequence. The fidelity and efficiency of dNaM and d5SICS replication approach those of natural synthesis. Both dNaM and d5SICS are also efficiently transcribed by T7 RNA polymerase in either direction.

dNaM IUPAC name: (1R)-1,4-Anhydro-2-deoxy-1-(3-methoxynaphthalen-2-yl)-D-erythro-pentitol. CAS Number: 1117893-19-2
d5SICS IUPAC name: 2-(2-Deoxy-β-D-erythro-pentofuranosyl)-6-methylisoquinoline-1(2H)-thione. CAS Number: 1010689-00-5

References
1. Seo, Y.J.; Matsuda, S.; Romesberg, F.E. J. Am. Chem. Soc., 2009, 131(14), 5046-7.
2. Seo, Y.J.; Hwang, G.T.; Ordoukhanian, P.; Romesberg, F.E. J. Am. Chem. Soc., 2009, 131(9), 3246-52.
3. Seo, Y.J.; Romesberg, F.E. ChemBioChem, 2009, 10(14), 2394-2400.
4. Hwang, G.T.; Hari, Y.; Romesberg, F.E. Nucleic Acids Res., 2009, 37(14), 4757-63.
5. Hari, Y.; Hwang, G.T.; Leconte, A.M.; Joubert, N.; Hocek, M.; Romesberg, F.E. ChemBioChem, 2008, 9(17), 2796-9.
6. Hwang, G.T.; Romesberg, F.E. J. Am. Chem. Soc., 2008, 130(44), 14872-82.
7. Leconte, A.M.; Hwang, G.T.; Matsuda, S.; Capek, P.; Hari, Y.; Romesberg, F.E. J. Am. Chem. Soc., 2008, 130 (7), 2336-43.