

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.

Puromycin

Category	Others	H ₃ C CH ₃
Modification Code	Puro	N
Reference Catalog Number	26-6603	5°OligoWW-O
5 Prime	Ν	бн Puromycin 3'
3 Prime	Y	°≓ [26-6603-XX]
Internal	Ν	H2N
Molecular Weight(mw)	533.48	\bigcirc
		OCH3

Puromycin can be attached to the 3' end of RNA and DNA oligos. Puromycin is an antibiotic that mimics transfer RNA. Puromycin binds in the ribosome's A site and forms a peptide bond with the growing peptide chain to block peptide elongation. By linking puromycin to synthetic RNA; a peptide-RNA fusion product can be formed. An application example is the use of 3'Puromycin to synthesize d(A27CC)-puromycin to which various mRNA sequences were then ligated. The mRNA sequence information was then translated in a reticulocyte lysate system. As the ribosome reached the poly-dA sequence, translation was stalled. Puromycin entered the ribosome A site and a peptide bond formed between the C-terminal of the synthesized peptide and the RNA encoding the peptide structure. The poly-dA sequence serves two purposes, first it stalls the ribosome thereby allowing puromycin to enter the A site and second it acts as a future capture site for oligo-dT-biotin. References: (1) S. Borman, C&EN, Feb. 12, 1996, 29-54. (2) R.W. Roberts and J.W. Szostak, Proc. Natl. Acad. Sci. USA, 1997, 94, 12297-302

