ChemGenes CORPORATION

Key Products

- Natural 2′-tBDSilyl Phosphoramidites
  - · Standard: 2′-Si-Abz, Cbz, Gibu, U.
  - · Mild: 2′-Si-Aac, Cac, Gac, U.
  - · Ultra-Mild: 2′-Si-Apac, Cpac, Gpac, U.
- 2′-O-Methyl –RNA Synthesis
  2′-O-Methyl A,C,G & U Phosphoramidites
- 2′-Fluoro – RNA Synthesis
  2′-Fluoro U & C Phosphoramidites

Bulk Capabilities

Bulk quantities in Kilo grams available

Quality Assurance Highlights

- cGMP Laboratory practices in place
- Robust Quality Assurance Program has been implemented for the quality of amidites & supports.
- Extensive Quality Management in place
- Extensive Documentation & Records in place
- Production & In-Process Controls
- Laboratory Controls
- Choice source of GMP grade oligonucleotides

UnyLinker Universal Support

(Technology Licensed from Isis Pharmaceuticals)
CPG and Polystyrene supports
Bulk supports and pre-packed columns Available

Key Features:

- Fully compatible with standard phosphoramidite reagents and synthesis conditions
- Has standard DMT group and requires standard deblock solutions for oligonucleotides synthesis
- Coupling efficiency ≥ 99%
- Results in 3′ – OH oligonucleotides
- Clean standard succinate linkage and so cleavage from support is quantitative during ammonia incubation

Non Cleavable Supports & Columns

- Non- Cleavable inert Supports & Columns
- Uniform Particle Size
- Long Chain Spacer on Rigid non-swellable Support
- Two particle sizes are available;
  15-20 um & 60-70 um

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RNA Synthesis-Reverse Direction

Phosphoramidites for Reverse RNA Synthesis

RNA synthesis in 5′»3′- direction

Coupling Efficiency approaching 99% makes this approach highly useful.

Key Applications :

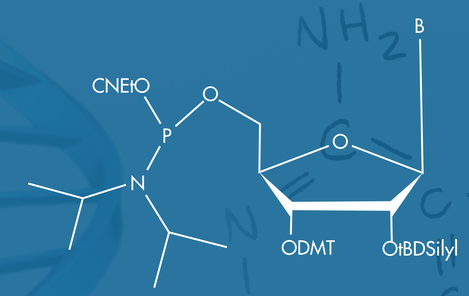
- Highly efficient synthesis of synthetic RNA in the Reverse direction.
- Application in convenient introduction of Ligands, chromphores and modifications of Synthetic RNA at the 3′- End.
- Design of Sense Strand of SiRNA
- Challenging 3′ – Modification of RNA

Structural Features :

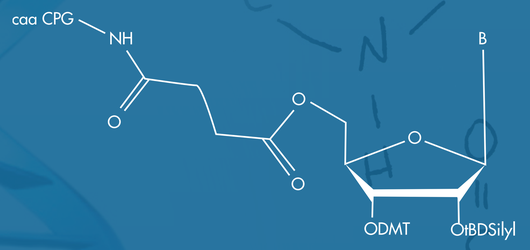
The reverse RNA monomer phosphoramidites carry a 3′- DMT group, 2′-tBDsilyl (tBDSi) or 2′-triisopropyl-siloloxymethyl (TOM) and 5′- cyanoethylphosphor-amidite (CED) group *(depicted in structures 1 & 2 respectively)*.

Quality Control :

- HPLC Purity of 98% and greater
- 31 P NMR purity from 98-100%
- Coupling Efficiency approaches 99% per step.



B; A (n-be)
C (n-be)
C (n-ac)
G (n-ibu)
U



B; A (n-be)
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G (n-ibu)
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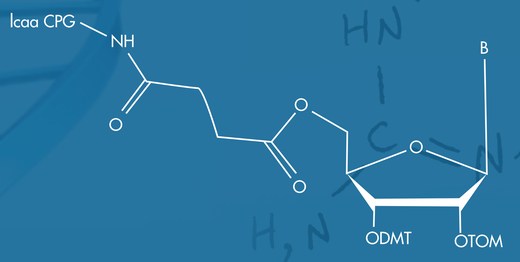

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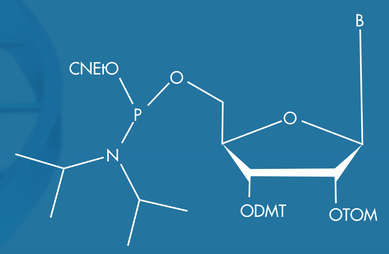
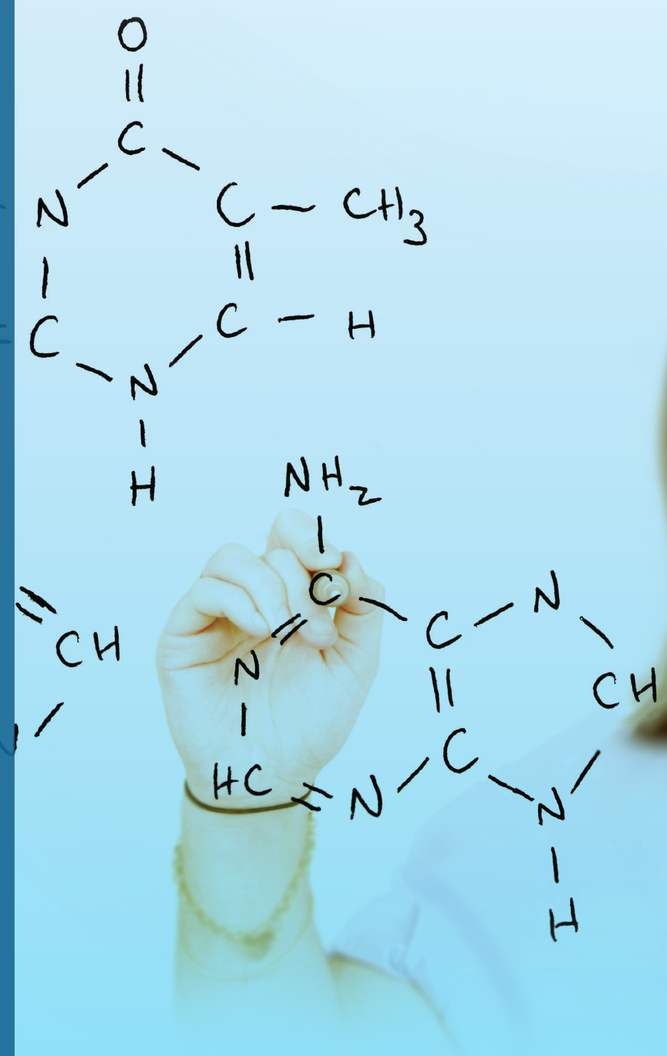


B; A (n-ac)
C (n-ac)
G (n-ac)
U



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