



Hongene Biotech

NUCLEOSIDES & NUCLEOTIDES

PRODUCT CATALOG

Nucleotides
Nucleosides
Phosphoramidites
Succinates
Cyclic Dinucleotides
Cap Analogs
Customized GalNAc



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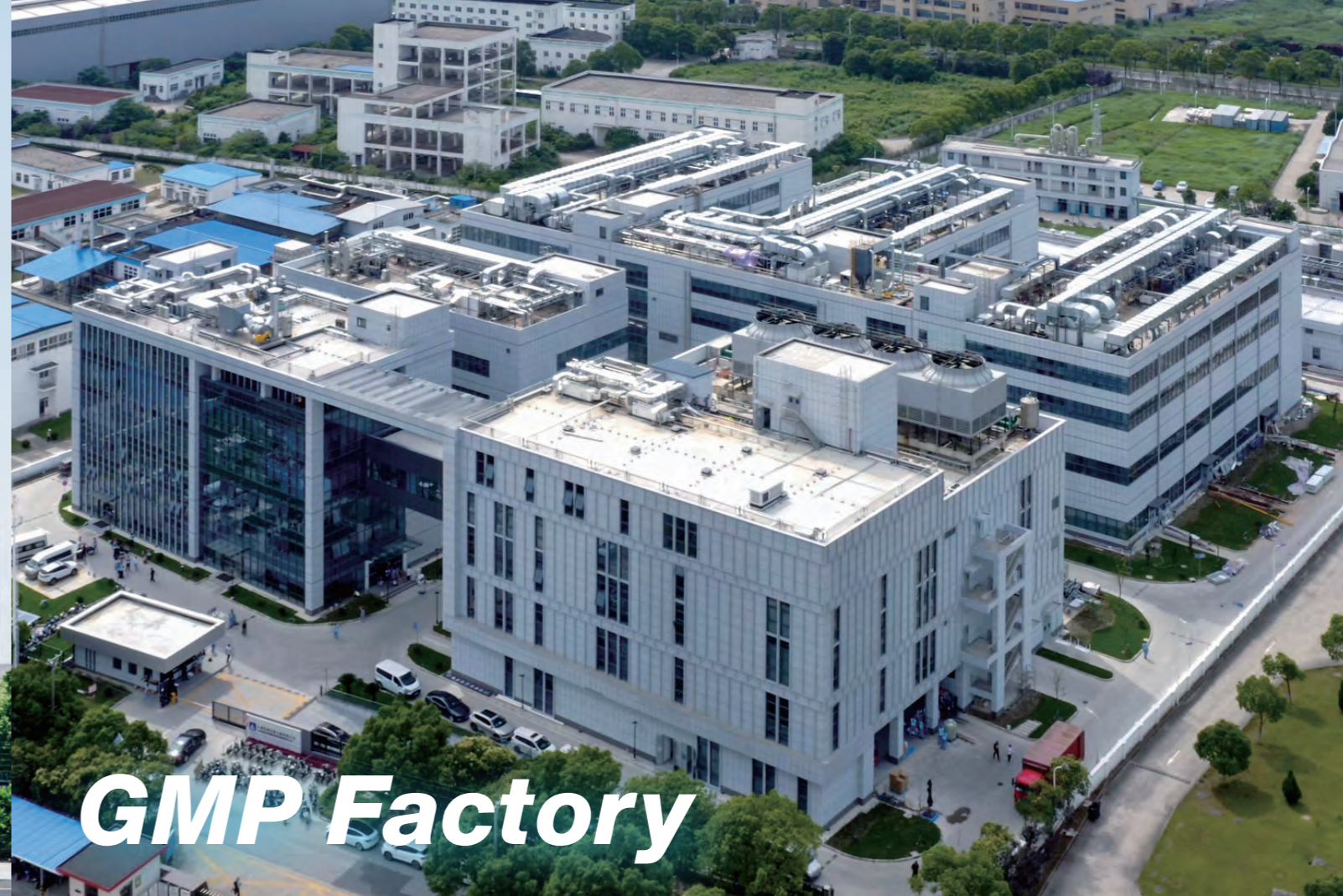
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GMP Factory

Introduction

Hongene Biotech Corporation was established in 1998 as a R&D organization and has since become a manufacturer with state-of-art facilities in the fields of nucleosides, nucleotides and phosphoramidites.

Having main operations in **Shanghai**, China at the start, today the company also has offices and laboratories in **USA** and **Japan**. Hongene supplies only **the best quality products at competitive price** to customers worldwide.

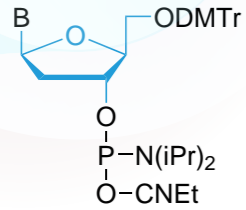
Through collaborations with pharmaceutical diagnostic and biotechnology companies, Hongene is **continuously developing new products** in this area of science.

At Hongene our experts are also happy to offer **custom synthesis products** essential for your R&D, helping to bring your products to market more efficiently.

Through continuous innovation, improvement of manufacturing technologies, the tightest quality control and devoted technical team and services, we aim to help our customers to **achieve their goals efficiently and economically**.

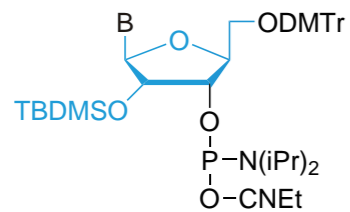
New Product Series

L-DNA Phosphoramidite



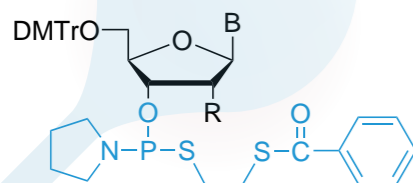
B = protected A, G, C, T Base

L-RNA Phosphoramidite



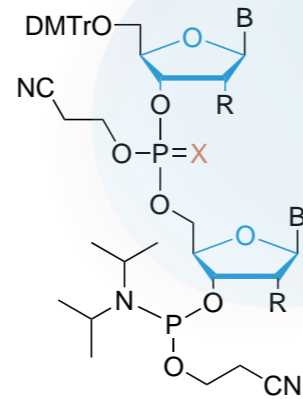
B = protected A, G, C, U Base

Thio Phosphoramidite



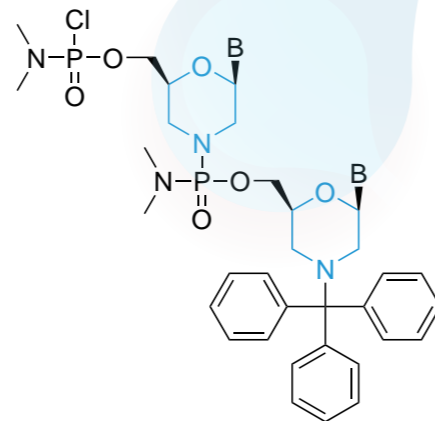
B = protected A, G, C, 5-Me-C, U, T Base
R = H, F, OMe, OMOE

Dimer Phosphoramidite



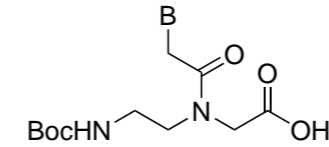
B = protected A, G, C and U, T Base
R = H, F, OMe, OMOE, OTBDMS ...
X = O, S

PMO Dimer Phosphoramidate



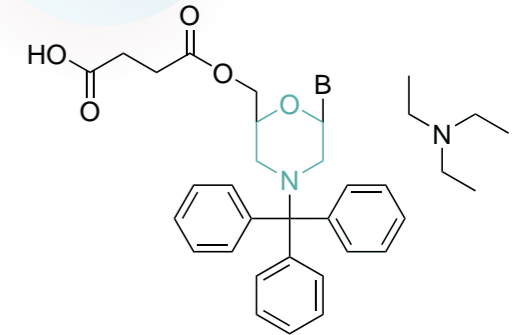
B = protected A, C, G, 5-Me-U Base

PNA Series



B = protected A, G, C, T Base

PMO Succinate

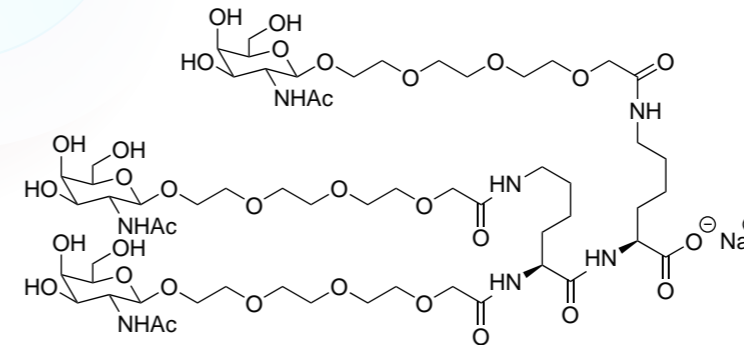


B = protected A, G, C and T Base

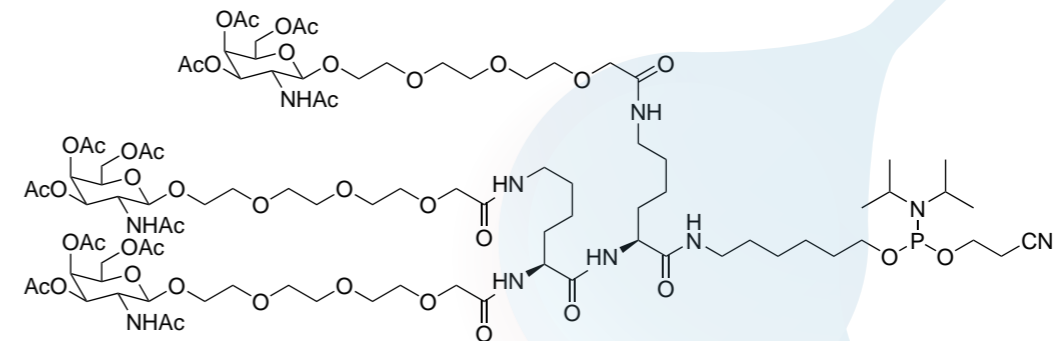
GalNAc

Licensed from Roche.

GalNAc-Cluster COONa



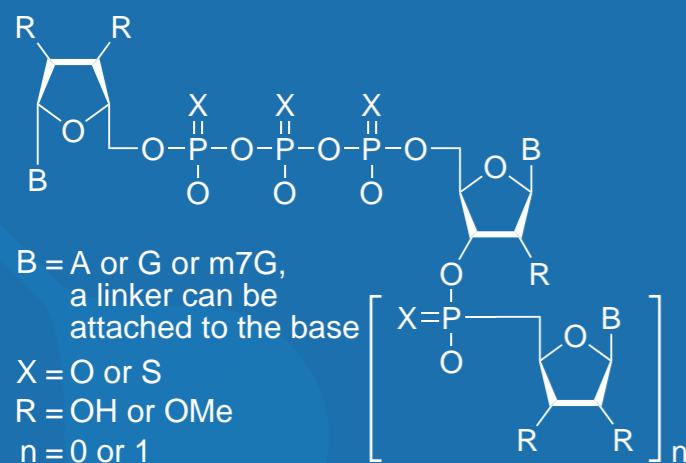
GalNAc-Cluster HHA-CE Phosphoramidite



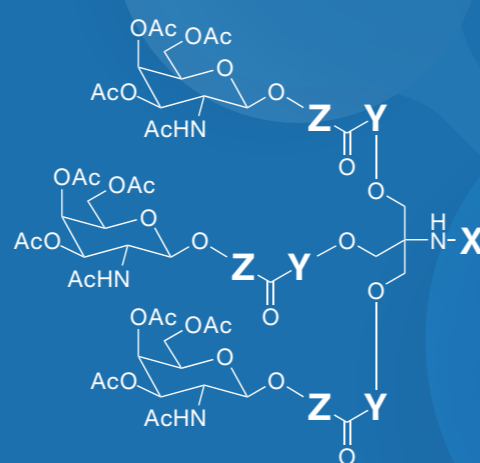
Custom Synthesis

For custom synthesis, Hongene can offer our expertise in the following areas to help with your special needs:

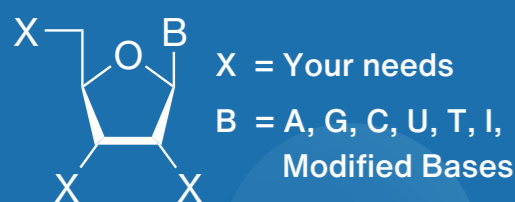
Customized Cap Analogs



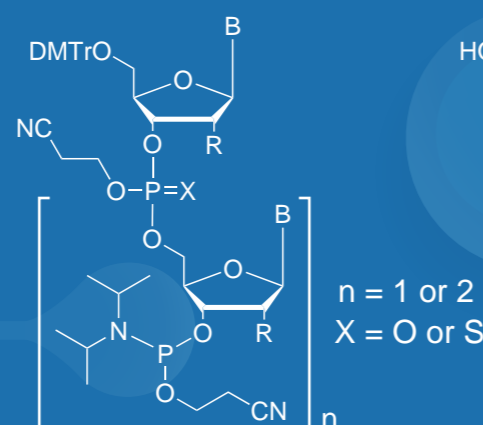
Customized GalNAc



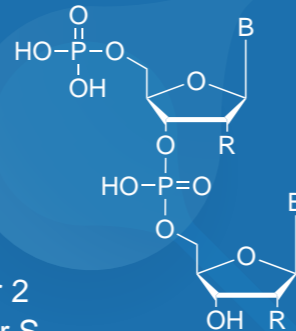
Modified nucleosides/nucleotides Phosphoramidites Intermediates



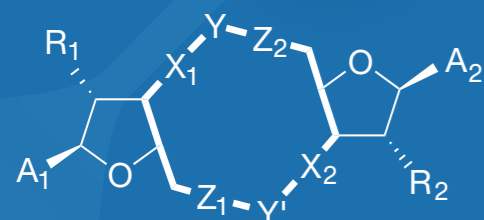
Dimer/Tirmer Phosphoramidites



Dinucleosides Phosphate



Customized CDNs



A₁, A₂ = Nucleic base/Nucleic base analogue

X₁Y₂, X₂Y₁ = OP(O)₂O⁻ or else

R₁, R₂ = H, OH, O-side chain or F

QC Capability

Hongene QC Labs have the capability to carry out the majority of the release testing.

QC activities:

- Raw Material Testing
- In-Process Testing
- Final Product Testing
- Environmental Monitoring
- Support for R&D
- Support for Process Development
- Stability Testing
- QC method development
- QC method validation

Typical final product release test include:

Identity:

Molecular weight (LC-MS),
NMR (¹H, ³¹P, ¹³C), HPLC

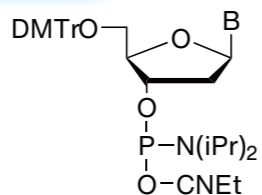
Purity:

HPLC, NMR (¹H, ³¹P, ¹³C)
Residual Solvents by GC, KF



Deoxynucleoside Phosphoramidites

DMT-dA(Bz)-CE Phosphoramidite
DMT-dA(dma)-CE Phosphoramidite
DMT-dG(iBu/dmf)-CE Phosphoramidite
5-Me-DMT-dC(Bz/Ac)-CE Phosphoramidite
N⁶-Me-DMT-dA-CE Phosphoramidite



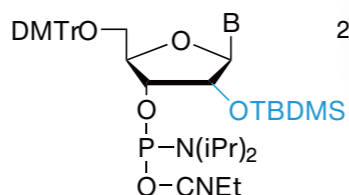
B = protected A, G, C and I, U, T Base

DMT-dT-CE Phosphoramidite
DMT-dI-CE Phosphoramidite
DMT-dU-CE Phosphoramidite
DMT-dC(Bz/Ac)-CE Phosphoramidite

HPLC ≥ 99%
³¹P NMR ≥ 98%
Custom, Bulk and OEM service

RNA Phosphoramidites

2'-O-TBDMS-A(Bz)-CE Phosphoramidite
2'-O-TBDMS-C(Bz/Ac)-CE Phosphoramidite



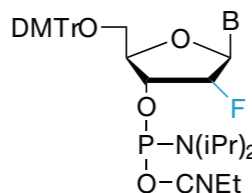
B = protected A, G, C and U Base

2'-O-TBDMS-G(iBu/dmf)-CE Phosphoramidite
2'-O-TBDMS-U-CE Phosphoramidite
2'-O-TBDMS-I-CE Phosphoramidite

HPLC ≥ 98%
³¹P NMR ≥ 98%
Custom, Bulk and OEM service

2'-Fluoro-Deoxynucleoside Phosphoramidites

DMT-2'-F-dA(Bz)-CE Phosphoramidite
DMT-2'-F-dG(iBu/dmf)-CE Phosphoramidite
DMT-2'-F-dC(Bz/Ac)-CE Phosphoramidite
DMT-2'-F-dU-CE Phosphoramidite
DMT-2'-F-dI-CE Phosphoramidite



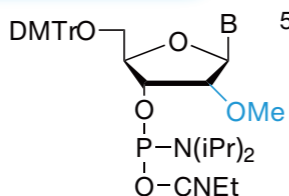
B = protected A, G, C and I, U Base

DMT-2'-F-G(iBu)-ANA-CE Phosphoramidite
DMT-2'-F-A(Bz)-ANA-CE Phosphoramidite
DMT-2'-F-C(Ac)-ANA-CE Phosphoramidite
DMT-2'-F-U-ANA-CE Phosphoramidite
And More...

HPLC ≥ 98%
³¹P NMR ≥ 98%
Custom, Bulk and OEM service

2'-O-Methyl-Nucleoside Phosphoramidites

DMT-2'-O-Me-A(Bz)-CE Phosphoramidite
DMT-2'-O-Me-G(iBu/dmf)-CE Phosphoramidite
DMT-2'-O-Me-C(Bz/Ac)-CE Phosphoramidite
DMT-2'-O-Me-dU-CE Phosphoramidite
DMT-2'-O-Me-dI-CE Phosphoramidite



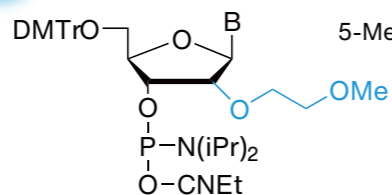
B = protected A, G, C and I, U Base

5-Me-DMT-2'-O-Me-C(Bz/Ac)-CE Phosphoramidite
5-Me-DMT-2'-O-Me-U-CE Phosphoramidite

HPLC ≥ 98%
³¹P NMR ≥ 98%
Custom, Bulk and OEM service

2'-O-MOE Phosphoramidites

DMT-2'-O-MOE-A(Bz)-CE Phosphoramidite
DMT-2'-O-MOE-G(iBu)-CE Phosphoramidite



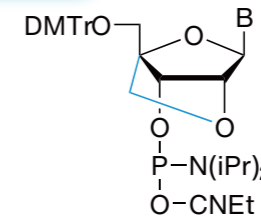
B = protected A, G, 5-Me-C and 5-Me-U Base

5-Me-DMT-2'-O-MOE-C(Bz/Ac)-CE Phosphoramidite
5-Me-DMT-2'-O-MOE-U-CE Phosphoramidite

HPLC ≥ 98%
³¹P NMR ≥ 98%
Custom, Bulk and OEM service

2'-O-4'-C-Locked Phosphoramidites

2'-O-4'-C-Locked-A(Bz)-CE Phosphoramidite
2'-O-4'-C-Locked-5-Me-C(Bz)-CE Phosphoramidite
2'-O-4'-C-Locked-G(dmf)-CE Phosphoramidite
2'-O-4'-C-Locked-T-CE Phosphoramidite

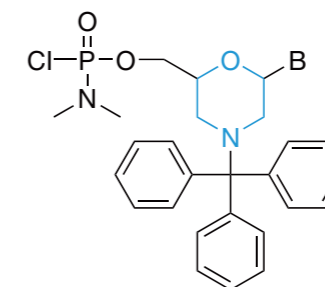


B = protected A, G, 5-Me-C and T Base

Custom, Bulk and OEM service

Morpholino Products

Morpholino-A(Bz) Subunit (PMO-A(Bz))
Morpholino-G(PhAc) Subunit (PMO-G(PhAc))
Morpholino-C(Bz) Subunit (PMO-C(Bz))
Morpholino-T Subunit (PMO-T)
O⁶-NPE-N²-iBu protected G PMO Monomer



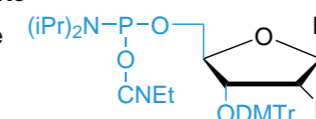
B = protected A, G, C and T Base

Custom, Bulk and OEM service

PMO-A(Bz) Precursor
PMO-G(iBu) Precursor
PMO-C(Bz) Precursor
PMO-T Precursor

Reverse Phosphoramidites

DMT-dA(Bz)-5'-CE Reverse Phosphoramidite
DMT-dG(dmf/iBu)-5'-CE Reverse Phosphoramidite
DMT-dC(Bz/Ac)-5'-CE Reverse Phosphoramidite
DMT-dT-5'-CE Reverse Phosphoramidite
Reverse Abasic Phosphoramidite



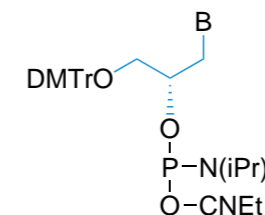
B = protected A, G, C and I, U, T Base
R = H, F, OMe, OMOE, OTBDMS

DMT-2'-F-dA(Bz)-CE Reverse Phosphoramidite
DMT-2'-OMe-G(iBu)-CE Reverse Phosphoramidite
DMT-2'-O-MOE-T-CE Reverse Phosphoramidite
DMT-2'-O-TBDMS-U-CE Reverse Phosphoramidite
And More...

Custom, Bulk and OEM service

GNA Phosphoramidites

A(Bz)-(S)-GNA phosphoramidite
C(Ac)-(S)-GNA phosphoramidite
T-(S)-GNA phosphoramidite

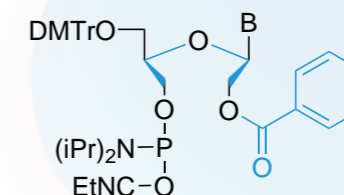


B = protected A, C and T Base

Custom, Bulk and OEM service

UNA Phosphoramidites

UNA-A(Bz)-CE Phosphoramidite
UNA-C(Ac)-CE Phosphoramidite
UNA-G(iBu)-CE Phosphoramidite
UNA-U-CE Phosphoramidite

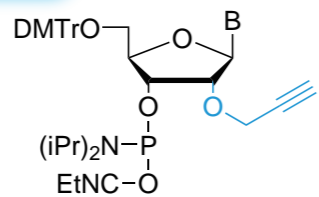


B = protected A, G, C and U Base

Custom, Bulk and OEM service

2'-O-Propargyl Phosphoramidites

- DMT-2'-O-propargyl-A(Bz)-CE Phosphoramidite
- DMT-2'-O-propargyl-C(Ac)-CE Phosphoramidite
- DMT-2'-O-propargyl-G(Ac)-CE Phosphoramidite
- DMT-2'-O-propargyl-G(iBu)-CE Phosphoramidite
- DMT-2'-O-propargyl-U-CE Phosphoramidite

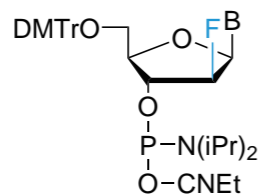


B = protected A, G, C, U Base

Custom, Bulk and OEM service

2'-FANA Phosphoramidites

- DMT-2'-F-A(Bz)-ANA-CE-Phosphoramidite
- DMT-2'-F-G(iBu)-ANA-CE-Phosphoramidite
- DMT-2'-F-C(Ac)-ANA-CE-Phosphoramidite
- DMT-2'-F-U-ANA-CE-Phosphoramidite

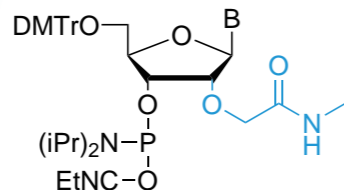


B = protected A, G, C, U Base

Custom, Bulk and OEM service

2'-O-NMA Phosphoramidites

- DMT-2'-O-NMA-A(Bz)-CE-Phosphoramidite
- 5-Me-DMT-2'-O-NMA-C(iBu)-CE-Phosphoramidite
- DMT-2'-O-NMA-G(iBu)-CE-Phosphoramidite
- 5-Me-DMT-2'-O-NMA-U-CE-Phosphoramidite

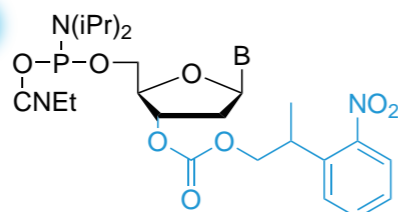


B = protected A, G, 5-Me-C and 5-Me-U Base

Custom, Bulk and OEM service

3'-NNPOC Phosphoramidites

- 3'-NNPOC-dA(Bz)-5'-CE-Phosphoramidite
- 3'-NNPOC-dC(Ac)-5'-CE-Phosphoramidite
- 3'-NNPOC-dG(iBu)-5'-CE-Phosphoramidite
- 3'-NNPOC-dT-5'-CE-Phosphoramidite

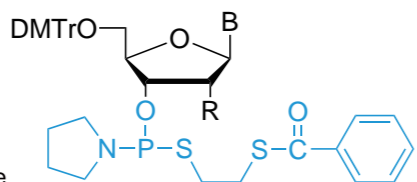


B = protected A, G, C and T Base

Custom, Bulk and OEM service

Thiophosphoramidites

- DMT-2'-dA(Bz)-3'-PS-Phosphoramidite
- DMT-2'-F-dC(Ac)-3'-PS-Phosphoramidite
- DMT-2'-OMe-G(iBu)-3'-PS-Phosphoramidite
- DMT-2'-dT-3'-PS-Phosphoramidite

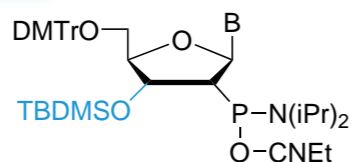


B = protected A, G, C, 5-Me-C, and U, T Base
R = H, F, OMe, OMOE

Custom, Bulk and OEM service

3'-O-TBDMS Phosphoramidites

- DMT-3'-O-TBDMS-A-CE Phosphoramidite
- DMT-3'-O-TBDMS-C-CE Phosphoramidite
- DMT-3'-O-TBDMS-G-CE Phosphoramidite
- DMT-3'-O-TBDMS-U-CE Phosphoramidite

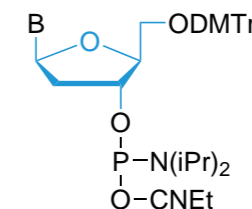


B = protected A, G, C and U Base

Custom, Bulk and OEM service

L-DNA Phosphoramidites

- DMT-β-L-dA(Bz)-CE Phosphoramidite
- DMT-β-L-dC(Ac)-CE Phosphoramidite
- DMT-β-L-dG(Ac)-CE Phosphoramidite
- DMT-β-L-dT-CE Phosphoramidite

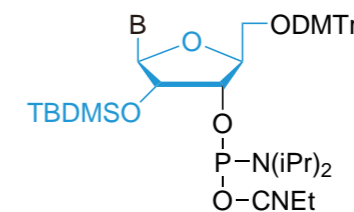


B = protected A, G, C, T Base

Custom, Bulk and OEM service

L-RNA Phosphoramidites

- DMT-2'-O-TBDMS-L-A(Bz)-CE-Phosphoramidite
- DMT-2'-O-TBDMS-L-G(iBu)-CE-Phosphoramidite
- DMT-2'-O-TBDMS-L-C(Ac)-CE-Phosphoramidite
- DMT-2'-O-TBDMS-L-U-CE-Phosphoramidite



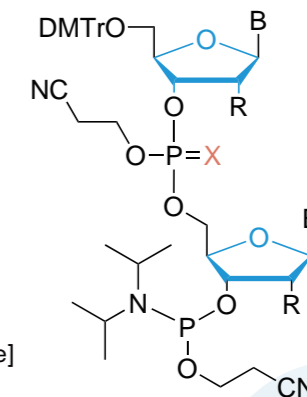
B = protected A, G, C, U Base

Custom, Bulk and OEM service

Dimer Phosphoramidites

DNA Dimer Phosphoramidites

- [5'-O-DMTr-2'-dG(iBu)](pCyEt)[2'-dG(iBu)-3'-CE-Phosphoramidite]
- [5'-O-DMTr-5-Me-2'-dU](pCyEt)[2'-dC(Bz)-3'-CE-Phosphoramidite]
- [5'-O-DMTr-2'-dT](P-thio-pCyEt)[2'-dA(Bz)-3'-CE-Phosphoramidite]
- And More...



B = protected A, G, C and U, T Base
R = H, F, OMe, OMOE, OTBDMS, etc.
X = O, S

Modified Dimer Phosphoramidites

- [5'-O-DMTr-2'-F-dA(Bz)](pCyEt)[2'-OMe-U-3'-CE-Phosphoramidite]
- [5'-O-DMTr-2'-OMe-A(Bz)](pCyEt)[2'-O-Me-G(iBu)-3'-CE-Phosphoramidite]
- [5'-O-DMTr-2'-dA(Bz)](P-thio-pCyEt)[2'-dT-3'-CE-Phosphoramidite]
- And More...

PMO Dimer Phosphoramidates

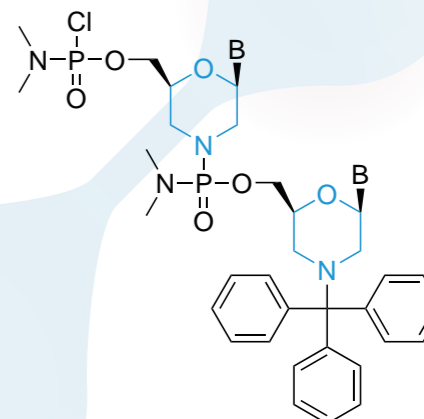
- PMO-CA-Dimer Phosphoramidate
- PMO-AC-Dimer Phosphoramidate
- PMO-AA-Dimer Phosphoramidate
- PMO-CC-Dimer Phosphoramidate
- And More...

Custom, Bulk and OEM service

Other Phosphoramidites

- Chemical Phosphoramidate Reagent
- Unicap Phosphoramidate*
- And More.....

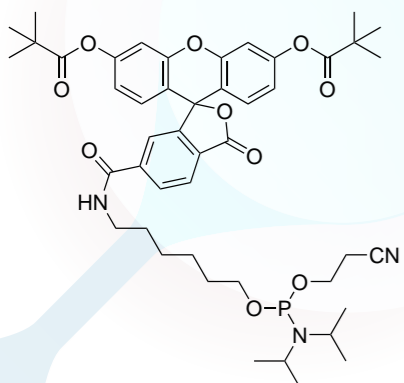
* For sale to licensed end-user only.



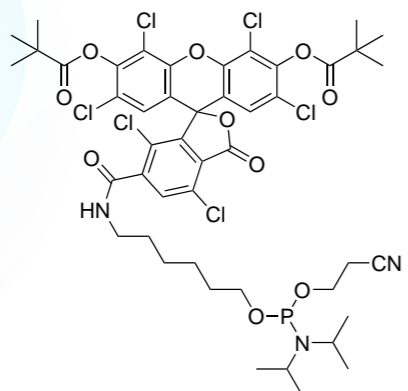
B = protected A, C, G, 5-Me-U Base

Dye Phosphoramidites

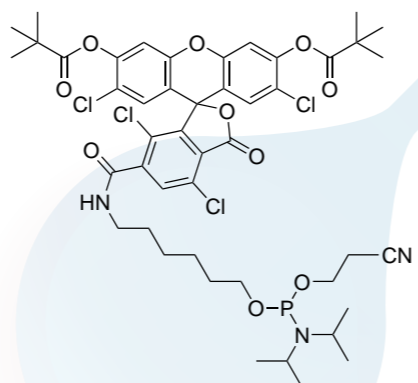
5'(6)-FAM



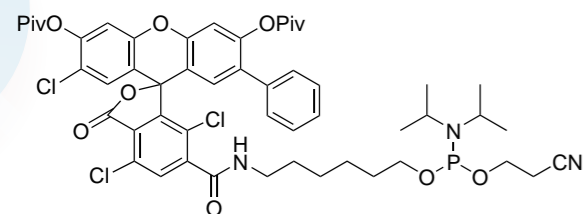
HEX Dye Amidite



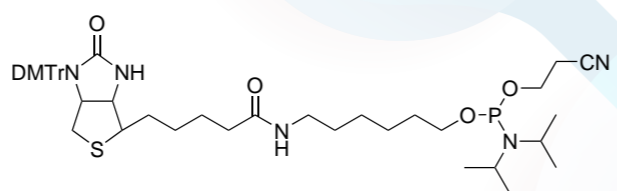
TET Dye Amidite



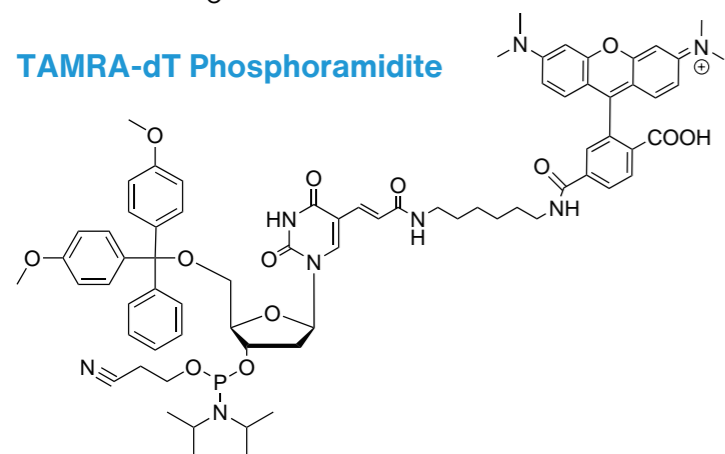
VIC2 Phosphoramidite



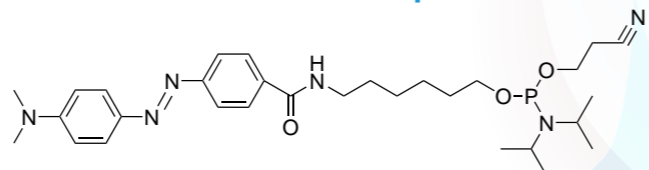
5'-Biotin Phosphoramidite



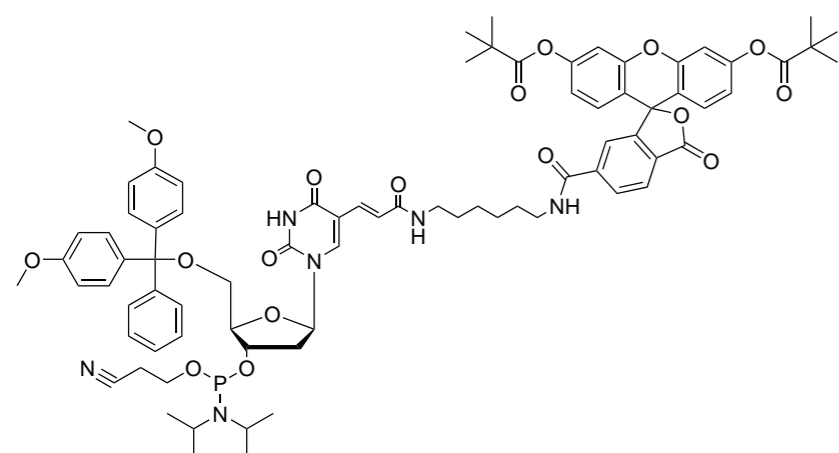
TAMRA-dT Phosphoramidite



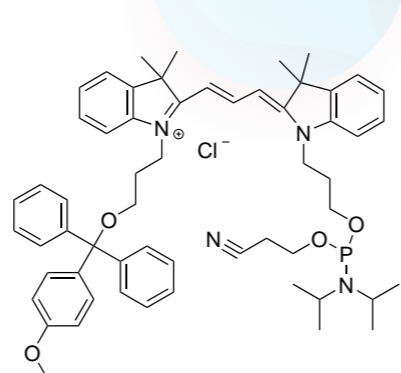
5'-DABCYLCE-Phosphoramidite



Fluorescein-dT Phosphoramidite

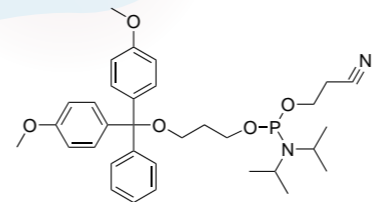


Cyanine 3 Phosphoramidite

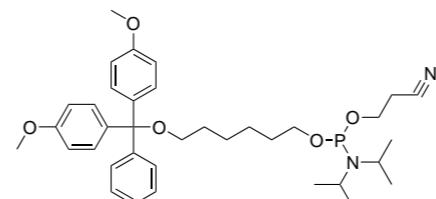


Linker Phosphoramidites

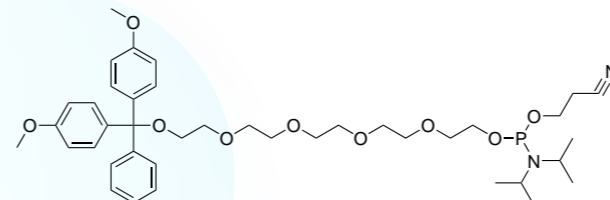
Spacer Phosphoramidite C3



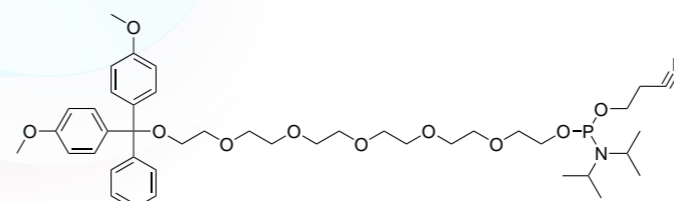
Spacer Phosphoramidite C6



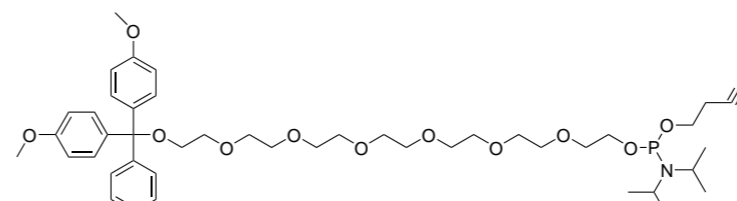
DMT-PEG Phosphoramidite



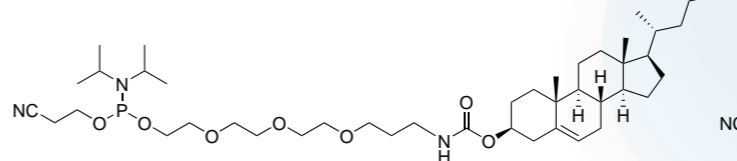
Spacer Phosphoramidite 18



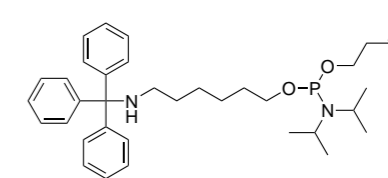
Spacer Phosphoramidite 20



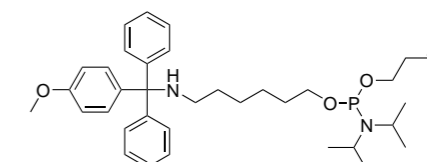
5'-Cholesteryl-Triethylene Glycol-CE Phosphoramidite



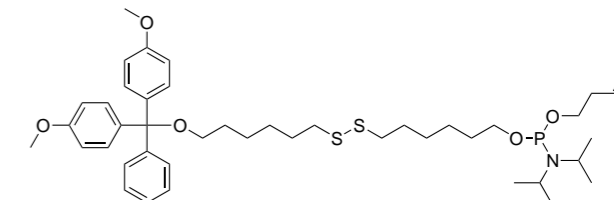
Tr-C6-amine-linker amidite



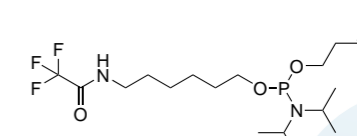
MMT amine-linker Phosphoramidite



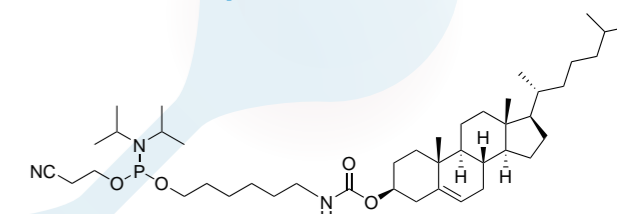
Thio-modifier C6 S-S linker



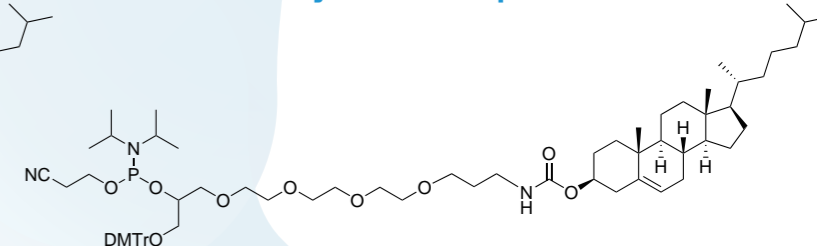
TFA-C6-amine-linker amidite



5'-Cholesterol-CE Phosphoramidite

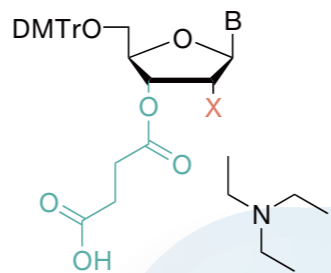


DMTr-Cholesteryl-TEG Phosphoramidite



Succinate

DMT-dA(Bz)/dC(Ac/Bz)/dG(iBu)/dT-3'-O-succinate, TEA salt
DMT-2'-F-dA(Bz)/dC(Ac)/dG(iBu)/dU-3'-O-succinate, TEA salt
DMT-2'-O-Me-A(Bz)/C(Ac/Bz)/G(iBu)/U-3'-O-succinate, TEA salt
DMT-2'-O-MOE-A(Bz)/C(Ac)/G(iBu)/U-3'-O-succinate, TEA salt
DMT-2'-O-TBDMS-A(Bz)/C(Ac)/G(iBu)/U-3'-O-succinate, TEA salt
And More...

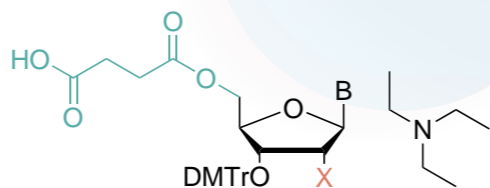


B = protected A, G, C and I, U, T Base
X = H, F, OMe, OMOE, OTBDMS

Custom, Bulk and OEM service

Reverse Succinate

3'-DMT-dA(Bz)/dC(Ac/Bz)/dG(iBu)/dT-5'-O-succinate, TEA salt
3'-DMT-2'-F-dA(Bz)/dC(Ac)/dG(iBu)/dU-5'-O-succinate, TEA salt
3'-DMT-2'-O-Me-A(Bz)/C(Ac)/G(iBu)/U-5'-O-succinate, TEA salt
3'-DMT-2'-O-MOE-A(Bz)/C(Ac)/G(iBu)/U-5'-O-succinate, TEA salt
3'-DMT-2'-O-TBDMS-A(Bz)/C(Ac)/G(iBu)/U-5'-O-succinate, TEA salt
And More...

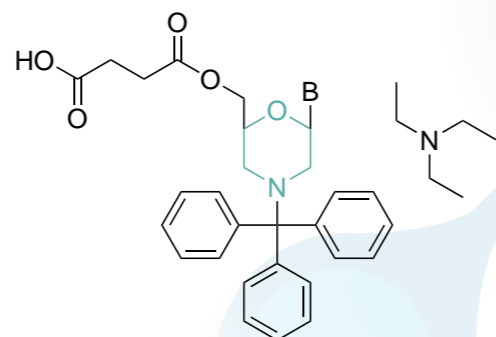


B = protected A, G, C and I, U, T Base
X = H, F, OMe, OMOE, OTBDMS

Custom, Bulk and OEM service

PMO Succinate

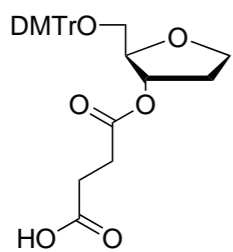
Morpholino A(Bz) succinate, TEA salt
Morpholino C(Bz) succinate, TEA salt
O⁶-NPE-Morpholino G(iBu) succinate, TEA salt
Morpholino T succinate, TEA salt
And More...



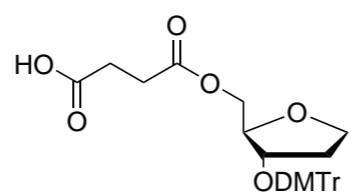
B = protected A, G, C and T Base

Abasic Succinate

Abasic Succinate

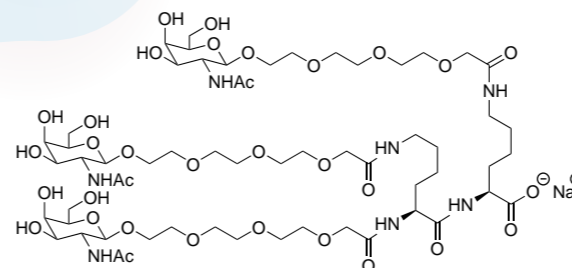


Reverse Abasic Succinate



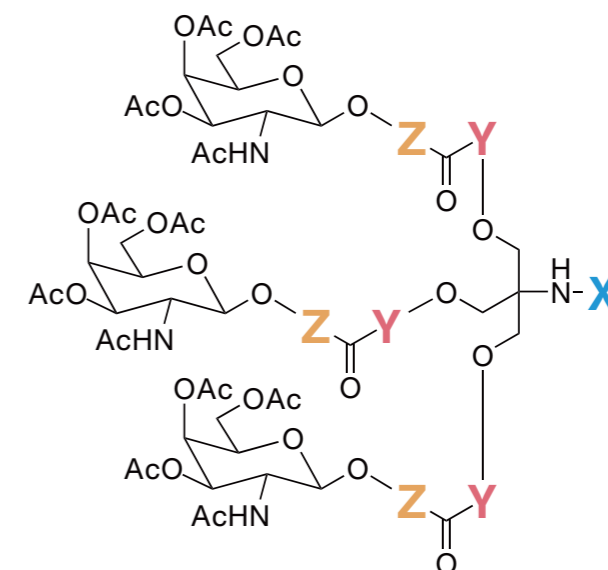
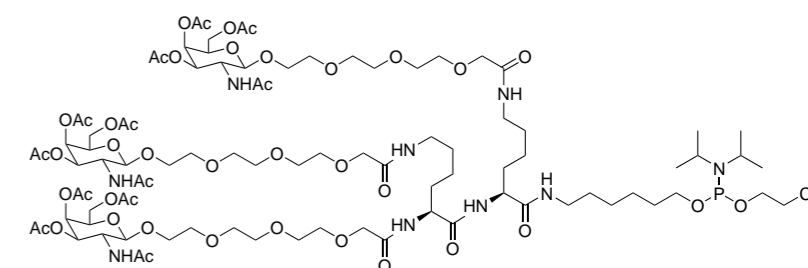
GalNAc

GalNAc-Cluster COONa*



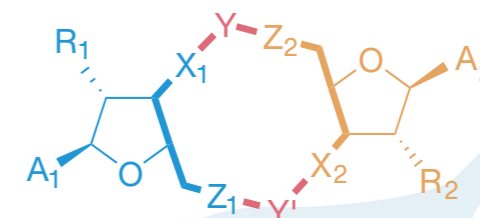
*Licensed from Roche.

GalNAc-Cluster HHA-CE Phosphoramidite*



Custom synthesis available.

Cyclic Dinucleotides



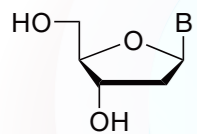
A₁, A₂ = Nucleic base / Nucleic base analogue

X₁Y Z₂, X₂Y' Z₁ = OP(O)₂O⁻ or else

R₁, R₂ = H, OH, O-side chain or F

Custom synthesis available.

2'-Deoxynucleosides

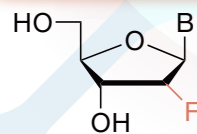


B = protected A, G, C and I, U Base

- 2'-Deoxyadenosine(2'-dA)
- 2'-Deoxycytidine hydrochloride(2'-dC·HCl)
- 2'-Deoxyinosine(2'-dl)
- 5-Methyl-2'-deoxycytidine(5-Me-dC)
- 2,6-Diaminopurine-2'-deoxyriboside

- 2'-Deoxyxanthosine(2'-dX)
- 2'-Deoxyguanosine(2'-dG)
- 2'-Deoxycytidine(2'-dC)
- 2'-Deoxyuridine(2'-dU)
- Thymidine

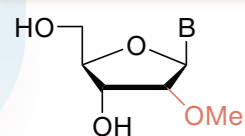
2'-Fluoro-Deoxynucleosides



B = protected A, G, C, I, U Base

- 2'-F-dA
- 2'-F-dG
- 2'-F-dC
- 2'-F-dI
- 2'-F-dU
- 2'-NH₂-2'-F-dA

2'-O-Methyl-Ribonucleosides

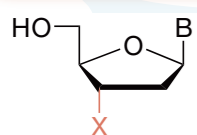


B = protected A, G, C and I, U Base

- 2'-O-Me-C
- 2'-O-Me-A
- 2'-O-Me-G

- 2'-O-Me-I
- 2'-O-Me-U
- 2'-NH₂-2'-O-Me-A
- 5-Me-2'-O-Me-U
- 5-Me-2'-O-Me-C

2',3'-Dideoxynucleosides

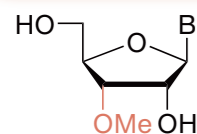


B = protected A, G, C, I, U Base
X = N₃, NH₂

- 3'-NH₂-ddT(AMT)
- 3'-NH₂-ddA(AMA)
- 3'-NH₂-ddU(AMU)

- 3'-NH₂-ddG(AMG)
- 3'-NH₂-ddI(AMI)
- 3'-NH₂-ddC(AMC)
- 3'-N₃-ddT(AZT)
- 3'-N₃-ddU(AZU)
- 3'-N₃-ddA(AZA)
- 3'-N₃-ddC(AZC)

3'-O-Methyl-Ribonucleosides



B = protected A, G, C and I, U Base

- 3'-O-Methyl-adenosine(3'-O-Me-A)
- 3'-O-Methyl-guanosine(3'-O-Me-G)
- 3'-O-Methyl-inosine(3'-O-Me-I)
- 3'-O-Methyl-2-amino-adenosine(3'-O-Me-NH₂-A)

Halogen-Nucleosides

- 5-Bromo-2'-deoxycytidine(5-Br-dC)
- 5-Bromo-2'-deoxyuridine(5-Br-dU)
- 5-Iodo-2'-deoxycytidine(5-I-dC)
- 5-Iodo-2'-deoxyuridine(5-I-dU)

- 5-Iodo-2'-Fluoro-deoxyuridine(5-I-2'-F-dU)
- 8-Bromo-2'-deoxyguanosine(8-Br-dG)
- 2,6-Dichloropurine riboside
- 6-Chloropurine-2'-deoxyriboside

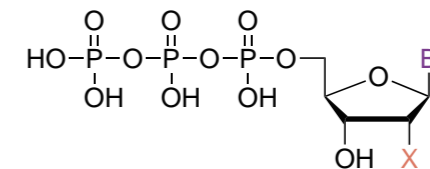
Other Modified Deoxynucleosides

- 7-Deaza-2'-deoxyadenosine(7-Deaza-dA)
- 2'-Amino-2'-deoxyadenosine(2'-NH₂-dG)
- 2'-Amino-2,6-Diaminopurine-2'-deoxyriboside(2'-NH₂-2-NH₂-dA)
- 5-Aminopropenyluridine(5-NH₂-Propenyl-U)
- 2-Aminopuridine riboside
- 5-Methyl-2'-O-(2-fluoroethyl)-uridine
- Isoguanosine / Isocytidine / Pseudouridine / 4-Thiouridine

- 2',3'-Dideoxyguanosine(2',3'-ddG)
- 2',3'-Dideoxythymidine(2',3'-ddT)
- 2',3'-Dideoxyadenosine(2',3'-ddA)
- 2',3'-Dideoxycytidine(2',3'-ddC)
- 2,2'-Cyclocytidine hydrochloride
- 2-SH-Adenosine
- And More.....

Modified Nucleotides

- 5-Br-dUMP.Na₂
- 5-Br-Ump.Na₂
- 5-Me-dCMP.Na₂
- 5-Me-Ump.Na₂
- 5-Hydroxyl-Ump.Na₂
- 5-O-Me-UTP,100mM Solution

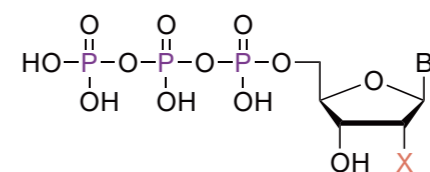


B = modified A, G, C, U, I Base
X = H, F, OMe ...

- 5-Me-CTP, 100mM Solution
- iso-dGTP, 100mM Solution
- 1-N-Me-Pseudo UTP, 100mM Solution
- Pseudo-UTP, 100mM Solution
- 2'-F-dNTP, 100mM Solution&Powder
- 2'-O-Me-dNTP, 100mM Solution&Powder
- And More.....
- Custom,Bulk and OEM service

dNTP

- dATP, 100mM Solution
- dCTP, 100mM Solution
- dGTP, 100mM Solution
- dTTP, 100mM Solution
- dUTP, 100mM Solution
- dITP, 100mM Solution



B = protected A, G, C, U, I Base
X = H, OH

- dNTP 25mM each Mix.Solution
- dNTP 10mM each Mix.Solution
- dNTP 2.5mM each Mix.Solution
- dNTP Mix, Li4, 25mM each
- HPLC≥99%
- DNase,RNases free
- Custom,Bulk and OEM service

NTP

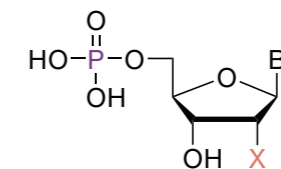
- ATP, 100mM Sodium Solution
- GTP, 100mM Sodium Solution
- CTP, 100mM Sodium Solution
- UTP, 100mM Sodium Solution
- N1-Me-Pseudo UTP, 100mM Sodium Solution

- ATP, 200mM Tris Solution
- GTP, 200mM Tris Solution
- CTP, 200mM Tris Solution
- UTP, 200mM Tris Solution
- N1-Me-Pseudo UTP, 200mM Tris Solution

- 5-Me-CTP, 100mM Sodium Solution
- 5-Me-UTP, 100mM Sodium Solution
- Pseudo UTP, 100mM Sodium Solution
- 5-OMe-UTP, 100mM Sodium Solution
- 5-OMe-UTP, 200mM Tris Solution

dNMP & NMP

- dAMP.H₂
- dAMP.Na₂
- dUMP.Na₂
- dCMP.H₂
- dCMP.Na₂
- dIMP.Na₂
- dGMP.Na₂
- dTMP.Na₂

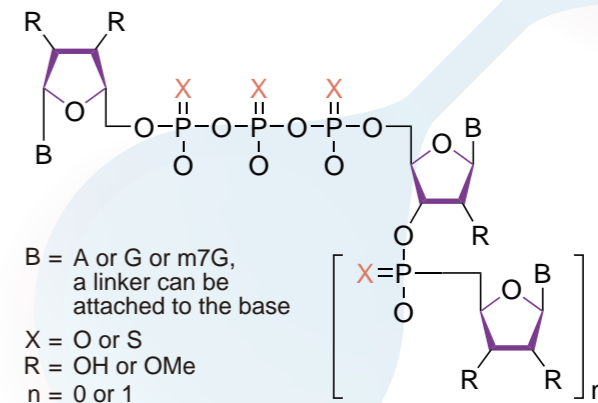


B = protected A, G, C, U, I Base
X = H, OH

- AMP.H₂
- Cyclo-AMP
- Cyclo-GMP
- Cyclo-CMP
- AMP.Na₂
- CMP.Na₂
- GMP.Na₂
- UMP.Na₂
- IMP.Na₂

Cap Analogs

- GpppG
- GpppA
- M7-GpppA
- M7-GpppG
- GAG Trimer*



B = A or G or m7G, a linker can be attached to the base
X = O or S
R = OH or OMe
n = 0 or 1

* The use of this product may require the buyer to obtain additional third party intellectual property rights for certain applications.

Note: Customization service available for all bases, salt types, concentration, etc.

Diagnostocs

- **Polymerase**
 - ON-007 Taq DNA polymerase
 - ON-051 pfu DNA polymerase
- **Reverse Transcriptase**
 - ON-076 M-MLV Reverse Transcriptase, RNase H Plus
 - ON-047 M-MLV Reverse Transcriptase, RNase H Minus
- **Modification Enzyme**
 - ON-056 Uracil-DNA Glycosylase (UNG), E.coli
 - ON-054 Uracil-DNA Glycosylase (UNG), heat-labile
- **Ligase**
 - ON-157 T4 DNA Ligase
 - ON-308 Taq DNA Ligase
- **RNase Inhibitor**
 - ON-039 RNase Inhibitor (Recombinant)
- **dNTP**
 - / dNTP Series ✖
- **Others**
 - ON-218 Proteinase K (Recombinant, Molecular Biology Grade)

mRNA Vaccines & Drugs

- **Kit**
 - ON-040 High Yield T7 RNA Synthesis kit
 - ON-257 Capped RNA Synthesis Kit ★
 - ON-269 Capped RNA Synthesis Kit (with tailing) ★

** For sale outside USA only.*
- **Enzyme**
 - ON-124 BspQI
 - ON-211 T7 Enzyme mix
 - ON-004 T7 RNA Polymerase, low concentration
 - ON-005 T7 RNA Polymerase, High concentration
 - ON-039 RNase Inhibitor (Recombinant)
 - ON-025 Pyrophosphatase Inorganic (yeast)
 - ON-109 DNase I (RNase-free)
 - ON-028 Vaccinia Capping Enzyme
 - ON-014 2' -O-Methyltransferase
 - ON-074 S-adenosylmethionine (SAM), 32mM
 - ON-126 Poly(A) Polymerase

mRNA Vaccines & Drugs

- **Enzyme**
 - ON-024 RNase III, E.coli
 - ON-078 10X RNase III Reaction Buffer
 - ON-079 10X MnCl₂
 - ON-080 10X EDTA
 - ON-081 T4 RNA Ligase 1
 - ON-179 Alkaline Phosphatase, TAB5
 - ON-180 10X Phosphatase Reaction Buffer
 - ON-333 NLS-Cas9, 10 M
- **Cap Analog**
 - ON-089 GpppG
 - ON-137 GpppA
 - ON-138 M7-GpppA
 - ON-136 M7-GpppG
 - ON-134 GAG Trimer ★

** The use of this product may require the buyer to obtain additional third party intellectual property rights for certain applications.*
- **Nucleotide**
 - R1331 ATP, 100mM Sodium Solution ✖
 - R2331 GTP, 100mM Sodium Solution ✖
 - R3331 CTP, 100mM Sodium Solution ✖
 - R5331 UTP, 100mM Sodium Solution ✖
 - R5-027 N¹-Me-Pseudo UTP, 100mM Sodium Solution ✖
 - R1-051 ATP, 200mM Tris Solution ✖
 - R2-057 GTP, 200mM Tris Solution ✖
 - R3-052 CTP, 200mM Tris Solution ✖
 - R5-065 UTP, 200mM Tris Solution ✖
 - R5-064 N¹-Me-Pseudo UTP, 200mM Tris Solution ✖
 - R3-029 5-Me-CTP, 100mM Sodium Solution ✖
 - R5-104 5-Me-UTP, 100mM Sodium Solution ✖
 - R5-022 Pseudo UTP, 100mM Sodium Solution ✖
 - R5-046 5-OMe-UTP, 100mM Sodium Solution ✖
 - R5-066 5-OMe-UTP, 200mM Tris Solution ✖

Note: ✖ Customization service available for all bases, salt types, concentration, etc.