



www.amrna.bio info@amrna.bio Somerville, MA, USA



Product Brochure



mRNA Products

CatPure[™] mRNA

CATUG

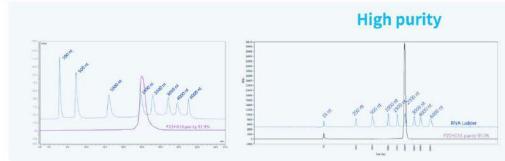
The application of mRNA technology in Covid vaccines has demonstrated its great potential as platform technology, with exciting frontiers in cancer vaccine, protein replacement, gene and cell therapy to name a few. AmRNA works with CATUG Biotechnology to deploy the best value mRNA to market and support R&D groups in academia as well as in biotech and pharmaceutical industries.

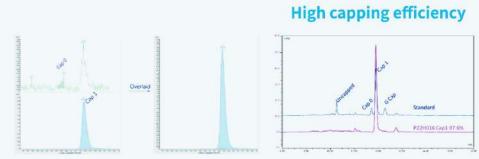
CatPure[™] mRNA products are guaranteed for high purity standard and super expression due to the smart sequence design, advanced process and careful internal control. So far, more than 15 CatPure[™] mRNA products are listed on AmRNA website (www.amrna.bio). We also accept custom synthesis for mRNA, self-amplifying mRNA and circular RNA.

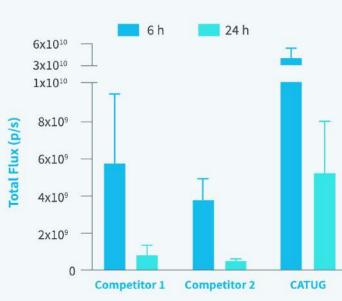
Advantages

- Each mRNA has been fully sequence optimized (CDS + UTR) and screened from more than 20 variants for the highest expression.
- Each mRNA is produced with strictly controlled IVT, olido-dT purification and TFF process to minimize batch-to-batch variation.
- Quality of each batch is fully analyzed and controlled with IND-grade release specification and confirmed with in vitro and cell potency.
- Each catalog mRNA has been greatly tested and validated among academic and industrial clients in a wide range of applications.

CatPure™ Firefly Luciferase mRNA Example







CatPure[™] FLuc mRNA translation in mice via in vivo protein expression assay.



CatPure[™] FLuc mRNA purity by UPLC (left) and CE (right).

CatPure[™] FLuc mRNA capping rate by LC-MS (left) and UPLC (right).

mRNA in vivo translation compared with market competitors Excellent mRNA potency for in vivo imaging tests Control group **Treatment Group** > N. CatPure[™] FLuc mRNA potency in mice measured by in vivo imaging at 6 h, 12 h, 24 h, and 48 h after the

injection of CatPure[™] FLuc mRNA.

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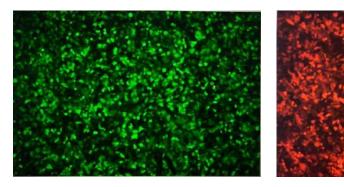


SKU	Product Name	Size NTP		Application	
СТ060	EGFP mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
СТ072	FLuc mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
СТ084	GLuc mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
СТ097	RLuc mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
CT110	beta gal mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
СТ119	mCherry mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
CT134	EPO mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Protein replacement	
СТ039	Cas9 mRNA	100 µg, 500 µg, 1 mg	N1-Me-Pseudo UTP	Gene editing	
СТ137	OVA mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Antigen	
CT145	Cre mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Gene editing	
СТ146	CD19 CAR mRNA	100 µg, 500 µg, 1 mg	N1-Me-Pseudo UTP	Cell therapy	
СТ060-суЗ	EGFP-cy3 mRNA	100 µg, 500 µg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
CT119-cy5	mCherry-cy5 mRNA	100 μg, 500 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene	
СТ10000, СТ20000	dsRNA 700	0.2 mg	N1-Me-Pseudo UTP, NTP	dsRNA standard	
СТ30000, СТ40000	dsRNA 1800	0.2 mg	N1-Me-Pseudo UTP, NTP	dsRNA standard	
СТ50000, СТ60000	dsRNA hairpin	0.2 mg	N1-Me-Pseudo UTP, NTP	dsRNA standard	
SA006	EGFP saRNA	100 μg, 500 μg, 1 mg NTP		Reporter gene	
SA003	FLuc saRNA	100 µg, 500 µg, 1 mg NTP Repor		Reporter gene	
SG003	sgRNA positive control, HRPT1	1 mg	NTP	Gene editing	

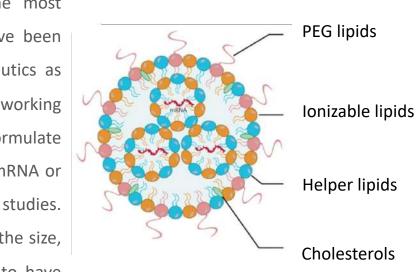
CatPure[™] LNP

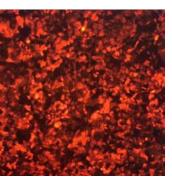
Lipid nanoparticles (LNPs) are one of the most popular non-viral delivery vehicles that have been widely used in mRNA vaccine and therapeutics as well as siRNA products. AmRNA has been working exclusively with CATUG Biotechnology to formulate ready-to-use LNPs encapsulating CatPure[™] mRNA or customized payload for in vitro and in vivo studies. All LNP products are carefully controlled for the size, PDI, encapsulation percentage and proved to have long-term stability.

SKU	Product Name	Size	NTP	Application
CT1003	EGFP mRNA LNP	100 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene
CT1004	FLuc mRNA LNP	100 μg, 1 mg	N1-Me-Pseudo UTP	Reporter gene
CT1005	mCherry mRNA LNP	100 μg,, 1 mg	N1-Me-Pseudo UTP	Reporter gene

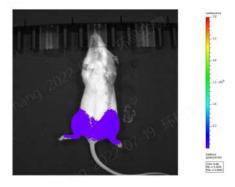








Cell transfection with mCherry LNP



Mouse IM injection with Fluc LNP

NTPs & Derivatives

NTPs & Derivatives

NTPs

2

Modified NTPs

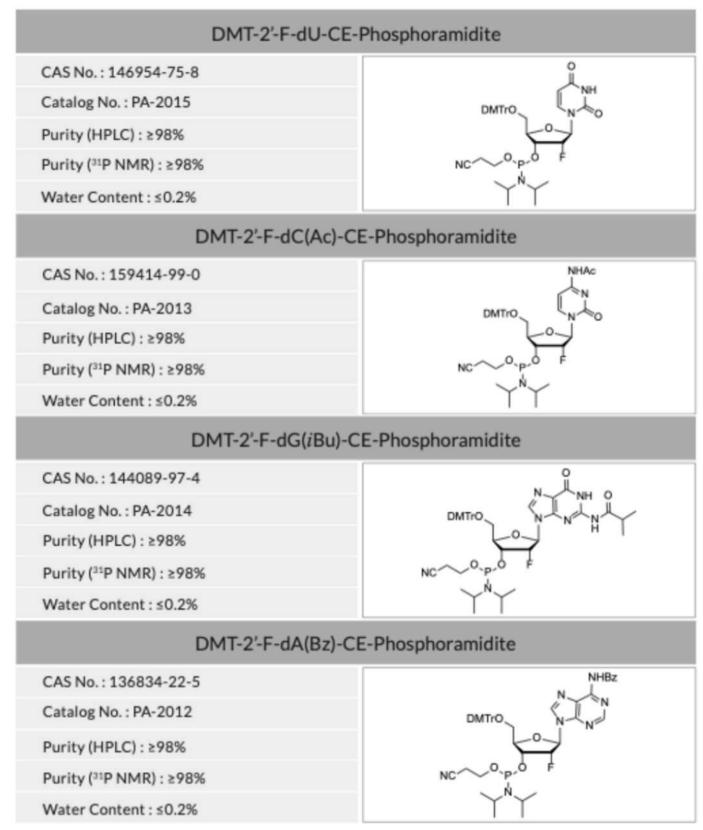
Catalog No.	Product Name	mM	Structure	Package
MR-1001	ATP sodium solution	100		1, 20, 100, 500 mL
MR-1002	GTP sodium solution	100	HO-P-O-P-O-P-O 0 0 0 N NH2 N NH2 NH2 NH2 NH2	1, 20, 100, 500 mL
MR-1003	CTP sodium solution	100		1, 20, 100, 500 mL
MR-1004	UTP sodium solution	100		1, 20, 100, 500 mL
MR-1005	ATP Tris solution	100		1, 20, 100, 500 mL
MR-1006	GTP Tris solution	100		1, 20, 100, 500 mL
MR-1007	CTP Tris solution	100		1, 20, 100, 500 mL

Catalog No.	Product Name	mM	Structure	Package
MR-1008	UTP Tris solution	100		1, 20, 100, 500 ml
MR-2001	5-Me-CTP	100		1, 20, 100, 500 ml
MR-2002	5-OMe-UTP	100		1, 20, 100, 500 ml
MR-2003	N7-Me-GTP	100		1, 20, 100, 500 m
MR-3001	Pseudo UTP sodium solution	100		1, 20, 100, 500 m
MR-3002	N1-Me-Pseudo UTP sodium solution	100		1, 20, 100, 500 m

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2
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Phosphoramidite

2'-Fluoro Phosphoramidite



2'-O-Methyl Phosphoramidite

CAS No.: 199593-09-4

Catalog No. : PA-2006

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: 110764-79-9

Catalog No. : PA-2019

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: 110782-31-5

Catalog No. : PA-2003

Purity (HPLC) : ≥98%

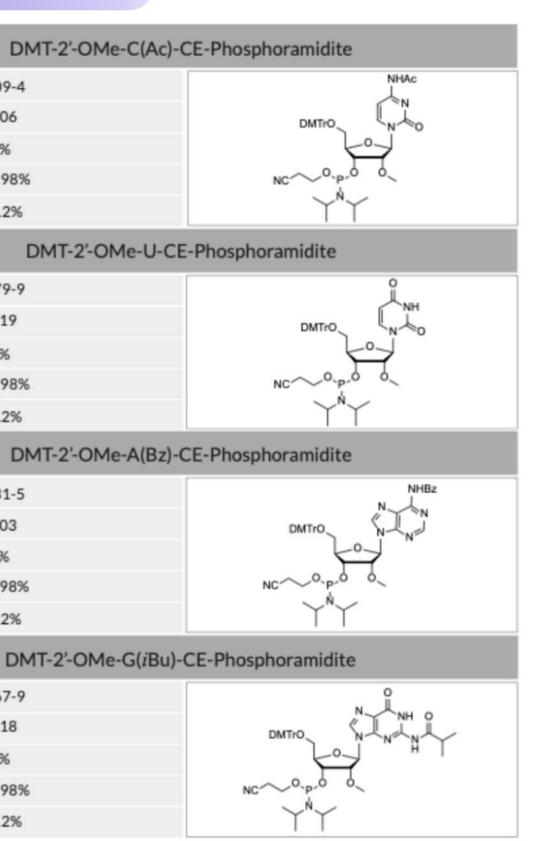
Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: 150780-67-9 Catalog No. : PA-2018

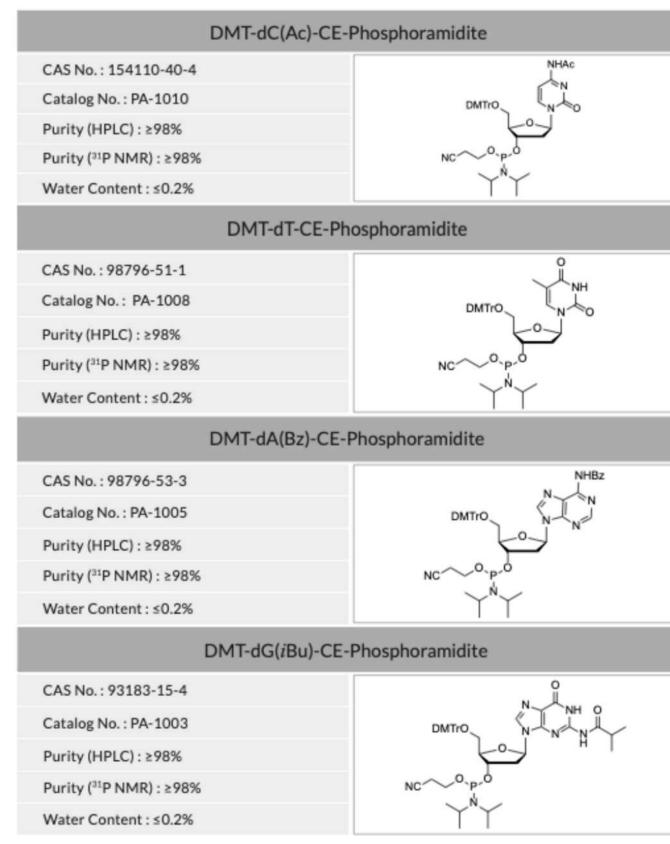
Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%



Phosphoramidite

Deoxynucleoside Phosphoramidite



- CAS No.: 110543-74-3
- Catalog No.: PA-1001
- Purity (HPLC) : ≥98%
- Purity (³¹P NMR) : ≥98%
- Water Content : ≤0.2%

DMT-dG(iPr-PAc)-CE-Phosphoramidite

- CAS No.: N/A
- Catalog No. : PA-1002
- Purity (HPLC) : ≥98%
- Purity (31P NMR) : ≥98%
- Water Content : ≤0.2%

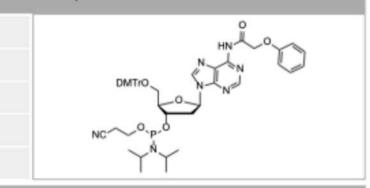
2'-O-TBDMS Phosphoramidite

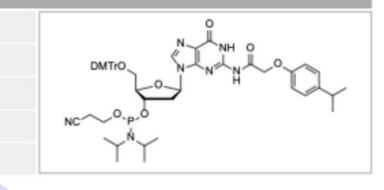
- CAS No.: 121058-88-6
- Catalog No.: PA-2011
- Purity (HPLC) : ≥98%
- Purity (31P NMR) : ≥98%
- Water Content : ≤0.2%

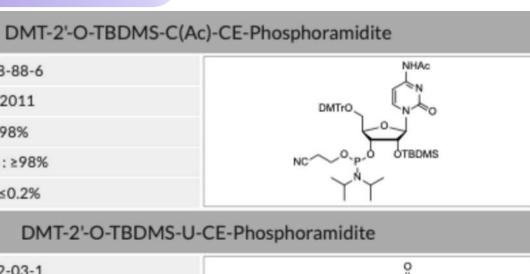
- CAS No.: 118362-03-1
- Catalog No. : PA-2010
- Purity (HPLC) : ≥98%
- Purity (³¹P NMR) : ≥98%
- Water Content : ≤0.2%

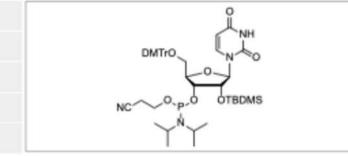


DMT-dA(PAc)-CE-Phosphoramidite









Phosphoramidite

DMT-2'-O-TBDMS-A(Bz)-CE-Phosphoramidite

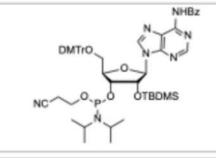
CAS No.: 104992-55-4

Catalog No.: PA-2008

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%



DMT-2'-O-TBDMS-G(iBu)-CE-Phosphoramidite

CAS No.: 147201-04-5

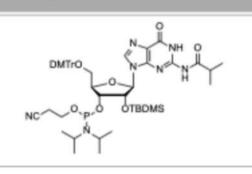
Catalog No. : PA-2009

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

Water Content : ≤0.2%



2'-O-MOE Phosphoramidite

5-Me-DMT-2'-O-MC	DE-C(Bz)-CE-Phosphoramidite
CAS No. : 163759-94-2	NHBz
Catalog No.: PA-3041	
Purity (HPLC) : ≥98%	
Purity (³¹ P NMR) : ≥98%	NC~0.p.0 0~0
Water Content : ≤0.2%	\uparrow
5-Me-DMT-2'-O-N	10E-U-CE-Phosphoramidite
CAS No. : 163878-63-5	
Catalog No.: PA-4041	DMTro NH
Purity (HPLC) : ≥98%	
Purity (³¹ P NMR) : ≥98%	NC~O.P.O.

DMT-2'-O-MOE-A
CAS No.: 251647-53-7
Catalog No. : PA-1041
Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: 251647-55-9

Catalog No.: PA-2040

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

2'-O-4'-C Locked Phosphoramidite

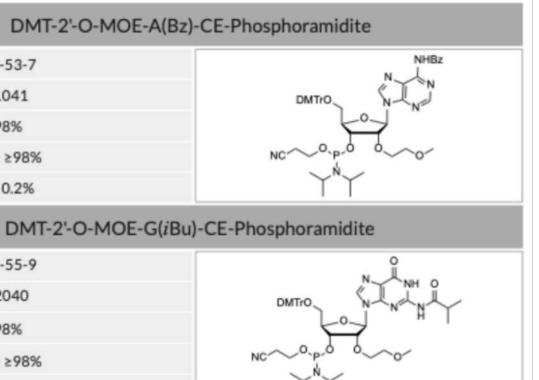
CAS No.: N/A

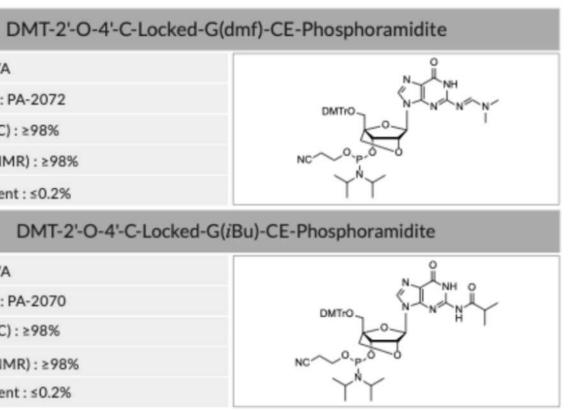
Catalog No.: PA-2072

Purity (HPLC) : ≥98%

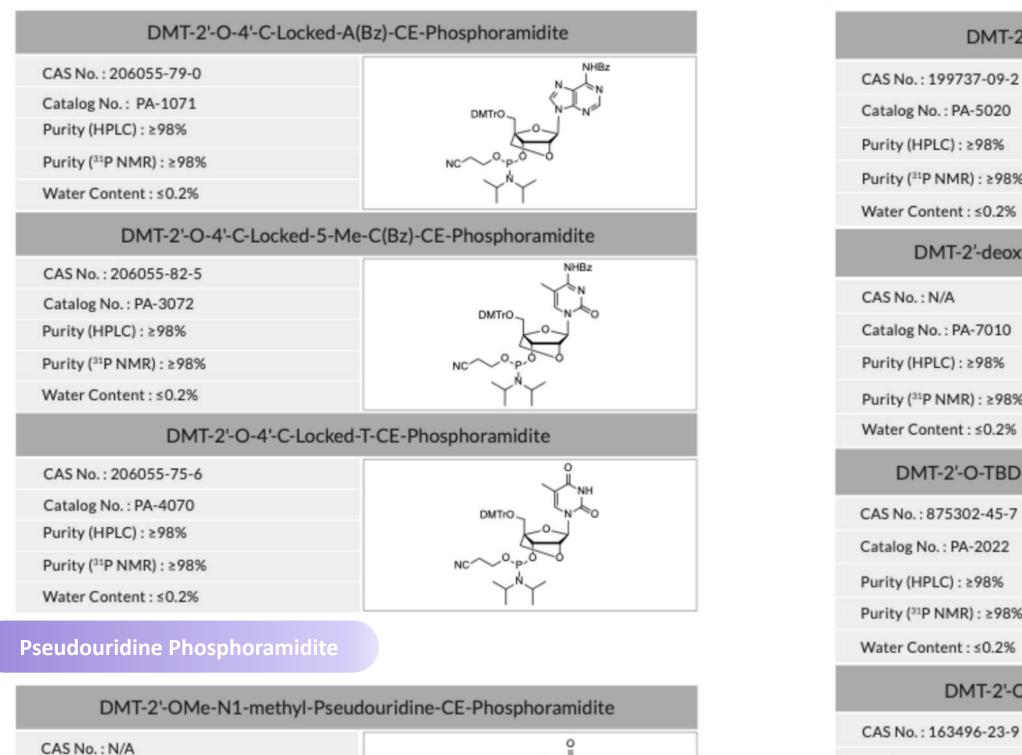
Purity (³¹P NMR) : ≥98%

CAS No. : N/A
Catalog No. : PA-2070
Purity (HPLC) : ≥98%
Purity (³¹ P NMR) : ≥98%
Water Content : ≤0.2%





Phosphoramidite



DMTH

Catalog No.: PA-7020

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

Catalog No.: PA-5020

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

DMT-2'-deoxy-N1-methyl-Pseudouridine-CE-Phosphoramidite

CAS No.: N/A

Catalog No.: PA-7010

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

DMT-2'-O-TBDMS-N1-methyl-Pseudouridine-CE-Phosphoramidite

CAS No.: 875302-45-7

Catalog No.: PA-2022

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

DMT-2'-O-TBDMS-Pseudouridine-CE-Phosphoramidite

CAS No.: 163496-23-9

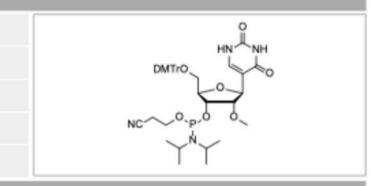
Catalog No.: PA-5050

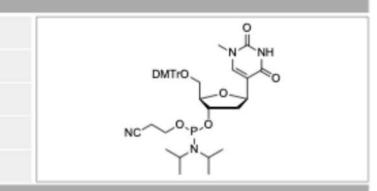
Purity (HPLC) : ≥98%

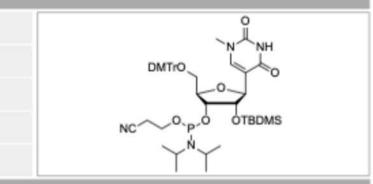
Purity (31P NMR) : ≥98%

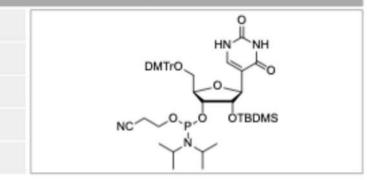
Water Content : ≤0.2%

DMT-2'-OMe-Pseudouridine-CE-Phosphoramidite



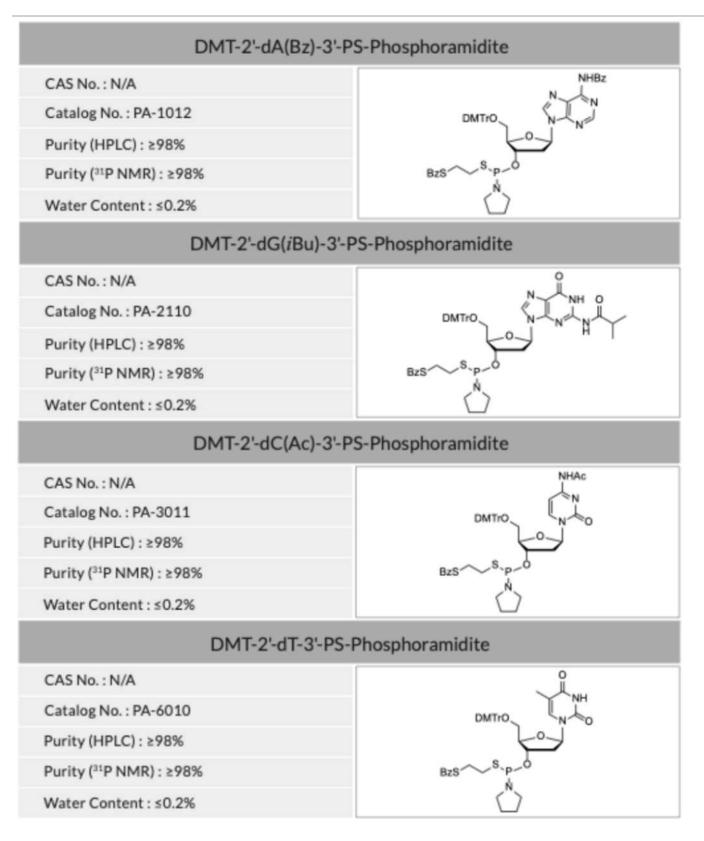






Phosphoramidite

DNA Triphosphoramidite



2'-OMe-Triphosphoramidite

CAS No. : N/A

Catalog No.: PA-1020

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: N/A

Catalog No.: PA-2023

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No. : N/A

Catalog No. : PA-3020

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

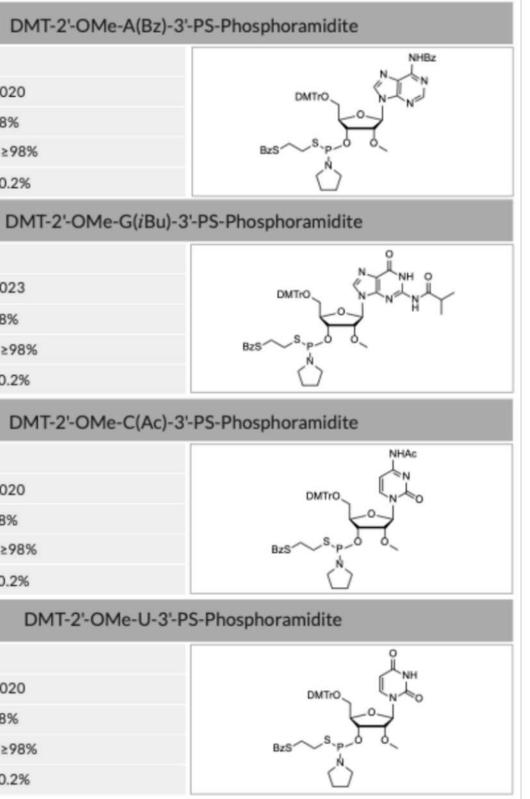
Water Content : ≤0.2%

CAS No. : N/A

Catalog No. : PA-4020

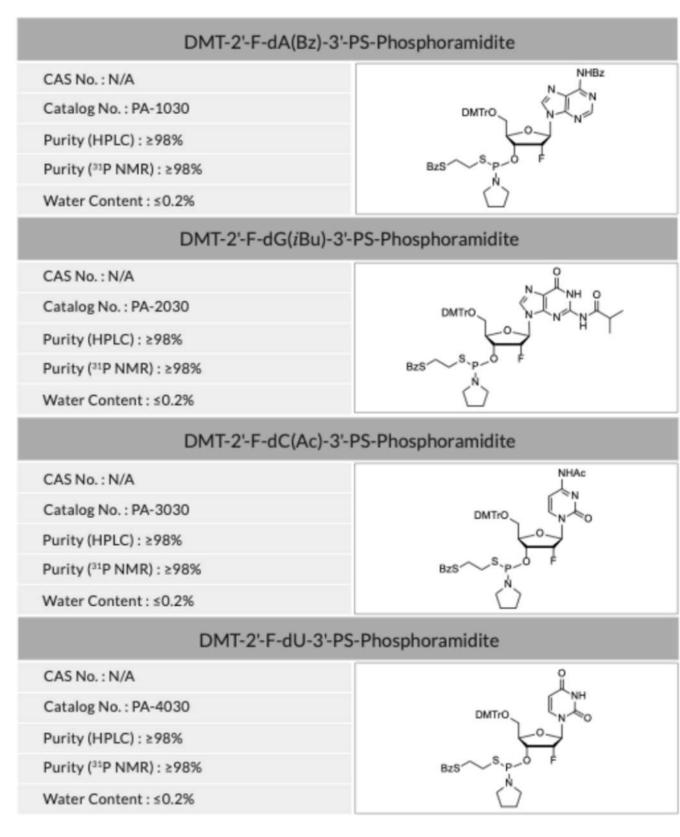
Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%



Phosphoramidite

2'-Fluoro Triphosphoramidite



2'-OMe-Reverse Phosphoramidite

CAS No.: N/A

Catalog No.: PA-3021

Purity (HPLC) : ≥98%

Purity (31P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: N/A

Catalog No.: PA-4021

Purity (HPLC) : ≥98%

Purity (31P NMR) : ≥98%

Water Content : ≤0.2%

CAS	No		NI/A
CAS	140.	•	11/24

Catalog No.: PA-1021

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

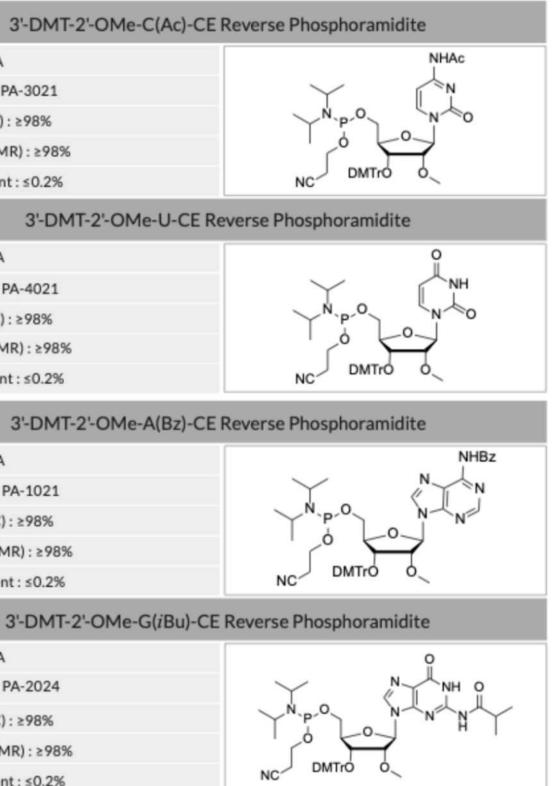
Water Content : ≤0.2%

CAS No. : N/A

Catalog No. : PA-2024

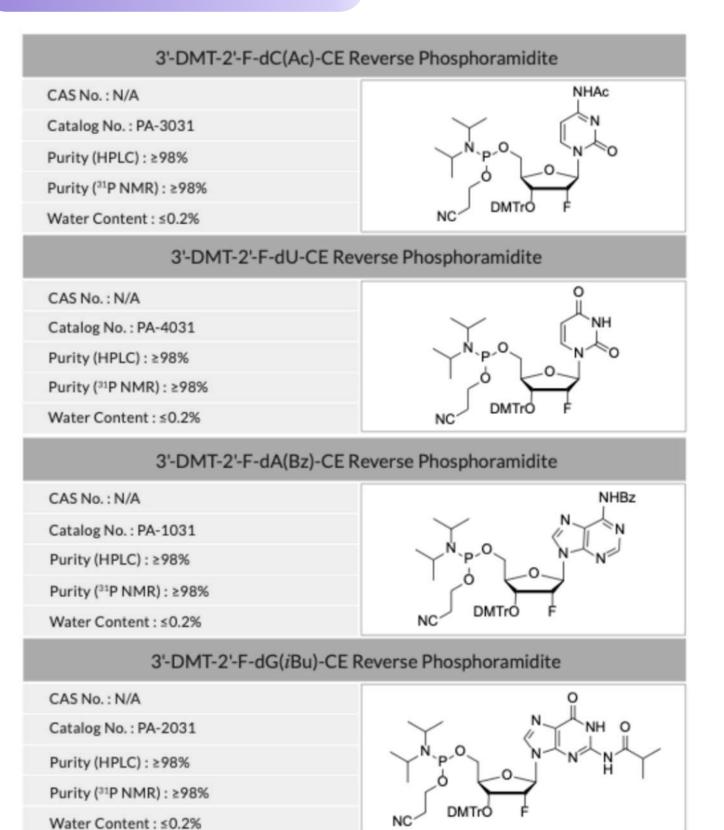
Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%



Phosphoramidite

2'-F-Reverse Phosphoramidite



L-RNA Phosphoramidite

DMTr-2'-O-TBDMS-L-A(Bz)-3'-CE-Phosphoramidite

CAS No.: N/A

Catalog No.: PA-4063

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: N/A

Catalog No.: PA-4061

Purity (HPLC) : ≥98%

Purity (31P NMR) : ≥98%

Water Content : ≤0.2%

CAS N	0.:	N/A	
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Catalog No.: PA-4062

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

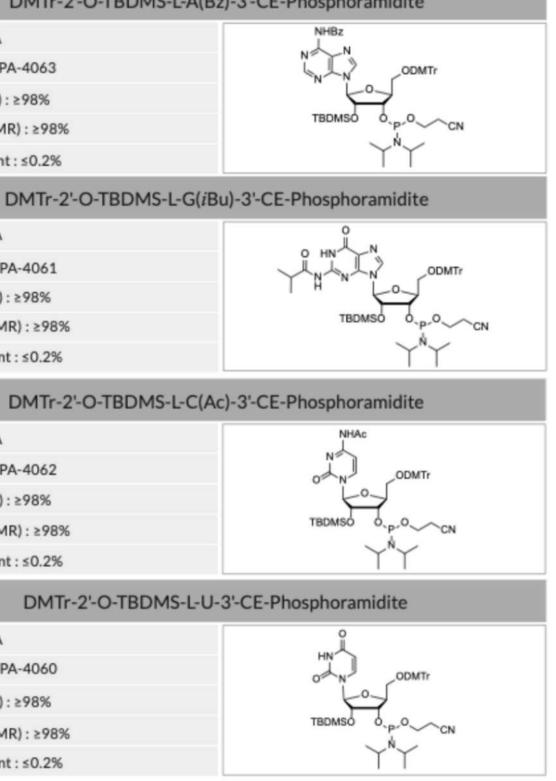
CAS No.: N/A

Catalog No.: PA-4060

Purity (HPLC) : ≥98%

Purity (31P NMR) : ≥98%

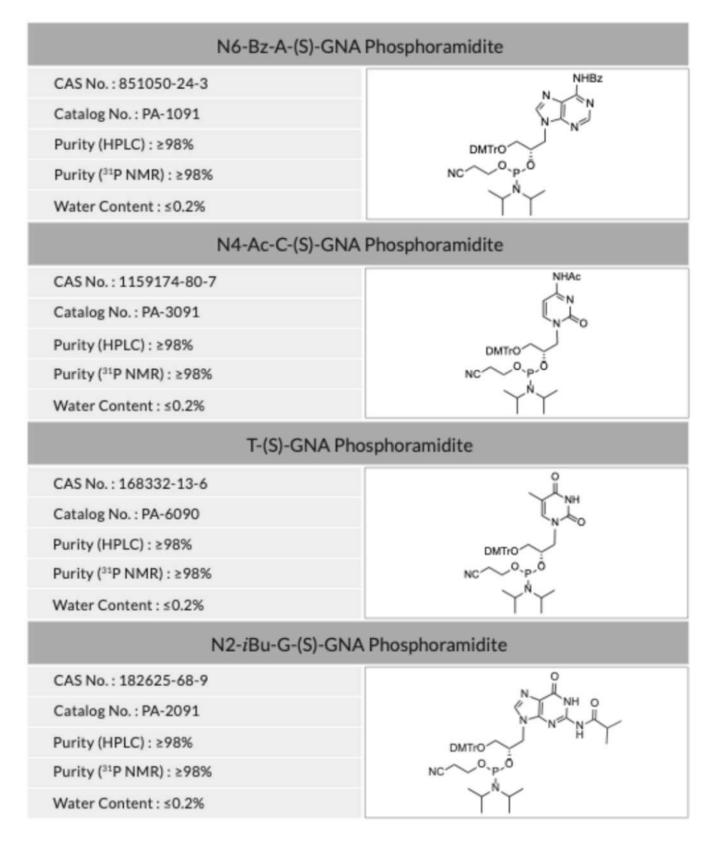
Water Content : ≤0.2%



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Phosphoramidite

GNA Phosphoramidite



UNA Phosphoramidite

CAS No.: 1120329-52-3

Catalog No.: PA-1100

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

CAS No.: 1120329-61-4

Catalog No.: PA-2100

Purity (HPLC) : ≥98%

Purity (³¹P NMR) : ≥98%

Water Content : ≤0.2%

UNA-C(Ac)-CE Phosphoramidite

CAS No.: 1120329-56-7

Catalog No.: PA-3100

Purity (HPLC) : ≥98%

Purity (31P NMR) : ≥98%

Water Content : ≤0.2%

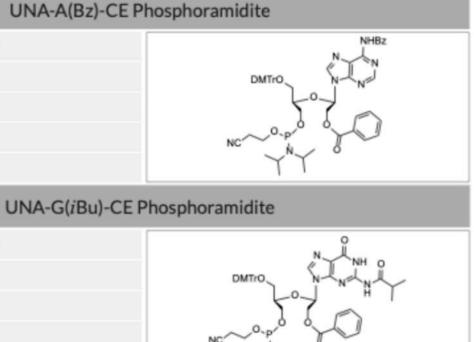
UNA-U-CE Phosphoramidite

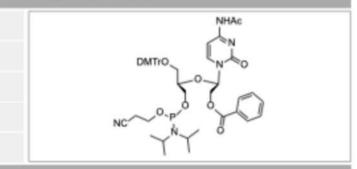
CAS No.: 1120329-48-7

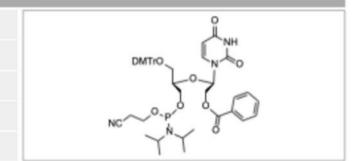
Catalog No.: PA-4100

Purity (HPLC) : ≥98%

Purity (31P NMR) : ≥98%

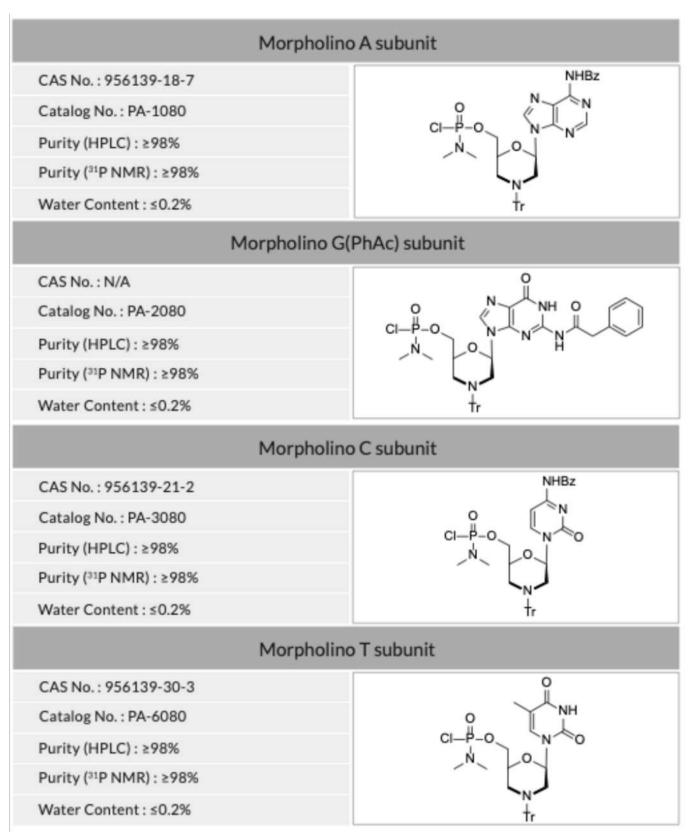


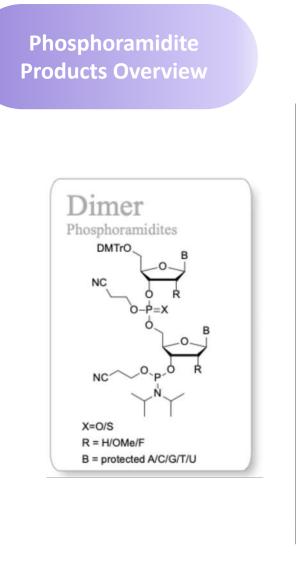


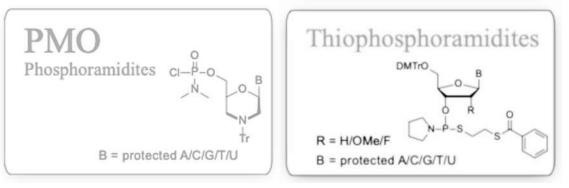


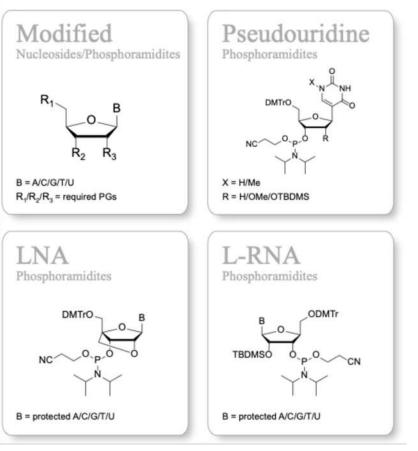
Phosphoramidite

Morpholino









For more structures, bulk orders, please contact us. info@amrna.bio