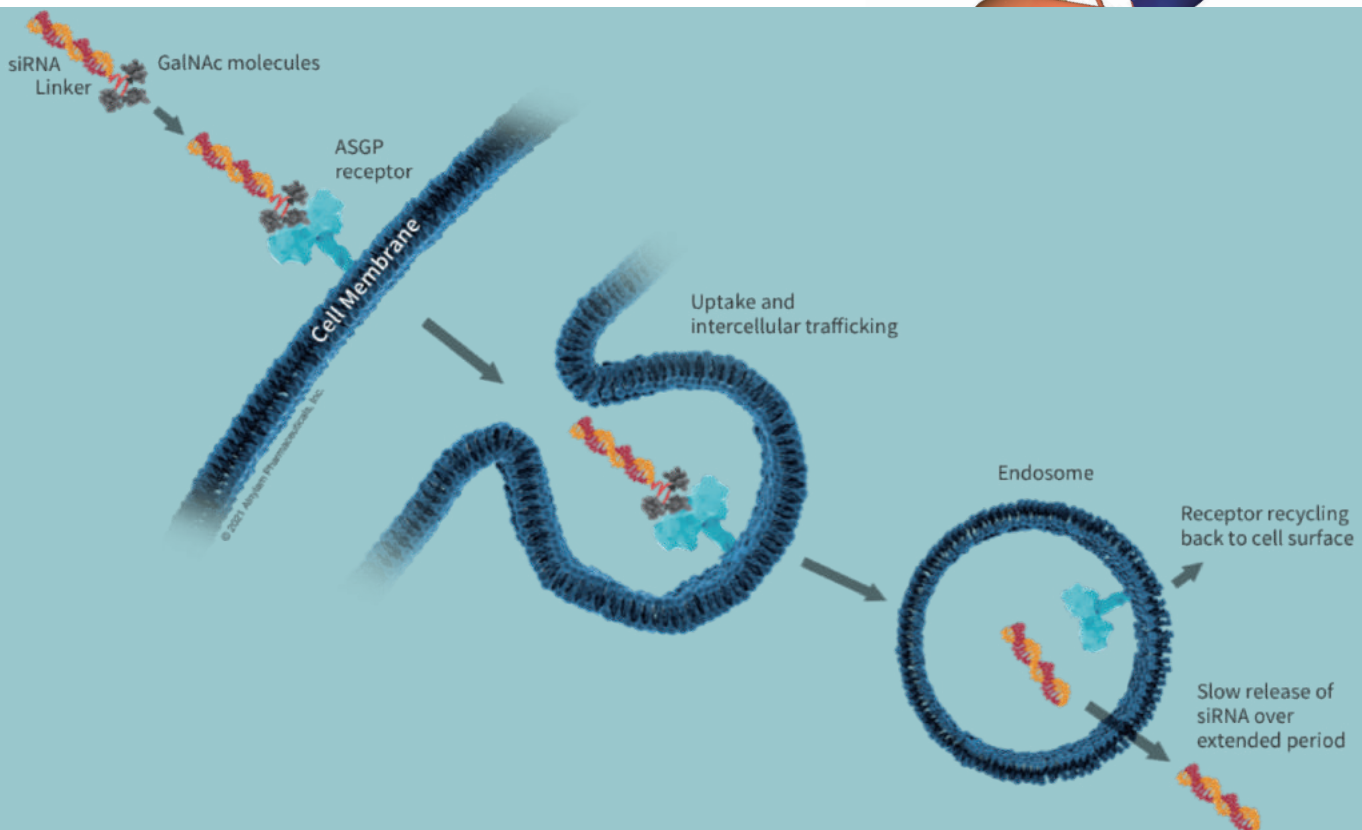
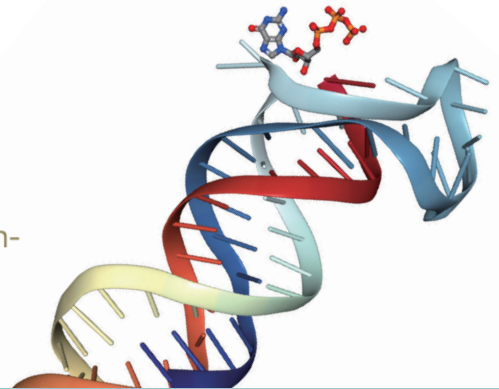


RNA synthesis Platform

-Your Global Partner for pharmaceutical and life science research-



info@creative-biogene.com



info@creative-biogene.com

Oligonucleotide Synthesis Services



Oligonucleotide Synthesis Services

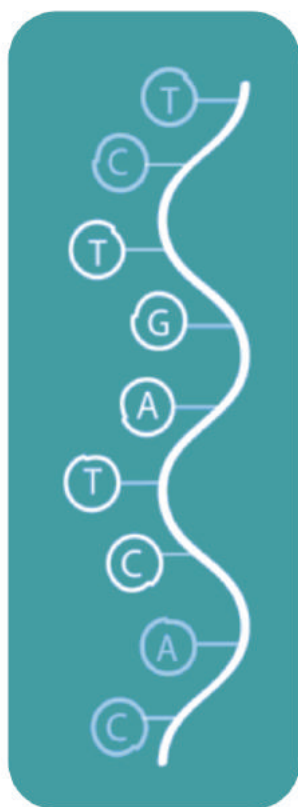
With advanced technologies, fully equipped facilities, and highly trained staff can provide a full spectrum of high-quality specialty oligonucleotide synthesis services to academic and industrial researchers worldwide. A wide range of oligo synthesis options is available at Creative Biogene, including standard DNA/RNA oligos, modified DNA/RNA oligos, long DNA/RNA oligos, probe synthesis, oligo pools, experience in oligo synthesis, Creative Biogene has the confidence to help you carry out your specific project cost-effectively and quickly, without compromising the quality.

Competitive Advantages

- Flexible Synthesis Scales
- Comprehensive Modifications and Labeling
- Multiple Purification Methods Available
- High Quality and Cost Effective

Featured Services

- Standard DNA/RNA oligos
- Modified DNA/RNA oligos
- Long DNA/RNA oligos
- Antisense oligos
- Aptamers
- CpG oligodeoxynucleotides (CpG ODN)
- Oligo pools
- Double-stranded RNAs (dsRNAs)



Custom RNA Synthesis (Chemical synthesis)

Creative Biogene proposes a large choice of chemistries, modifications, specifications and purifications. More than 300 modifications and several purity levels are available

Length: From 5 to 120 Bases

Synthesis scale: ug, mg, g

Backbone: 2'-OMe-RNA, 2'-O-MOE-RNA, Chimeric DNA, BNA, LNA, 2'-F-RNA

Purification: RNase Free HPLC, RNase-Free PAGE/SEC, RNase-Free Dual HPLC

Quality control: MS

Format: Lyophilized powder

RNA type: RNA oligo, mRNA, siRNA, shRNA, circRNA

Packaging: 2 ml tube, 96-well or 364-well plates

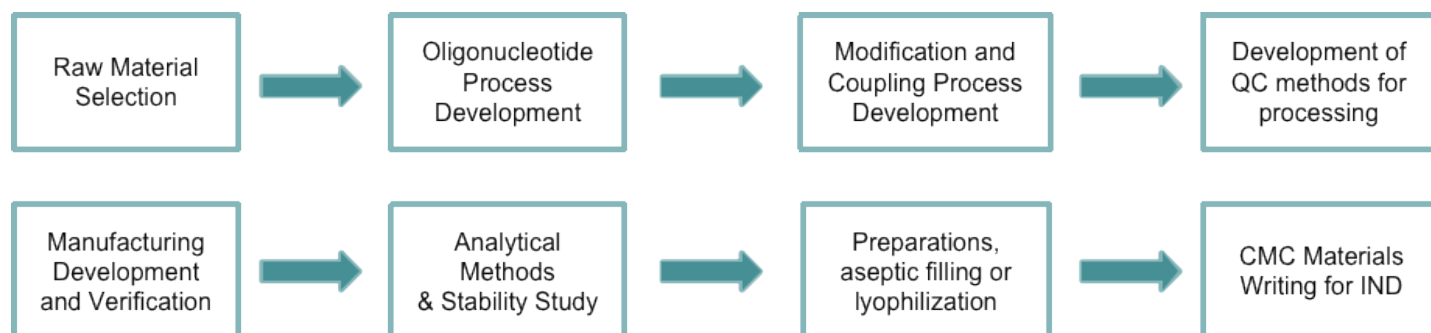
Documentation: COA, datasheet, MSDS

Base modification: Rare base, phosphorothioate, modified base, biotin, digoxin, NH₂ modification, SH modification, Spacer *etc.*

Fluorescent modification: Cy labeling, JOE, FAM, HEX, TET, ROX, TAMRA *etc.*

GaINAc-siRNA/ASO Design and Synthesis

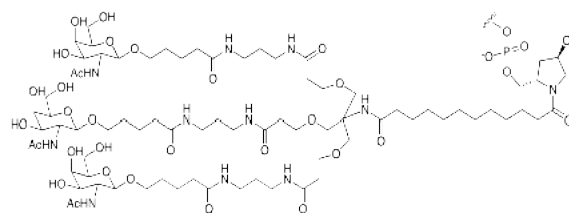
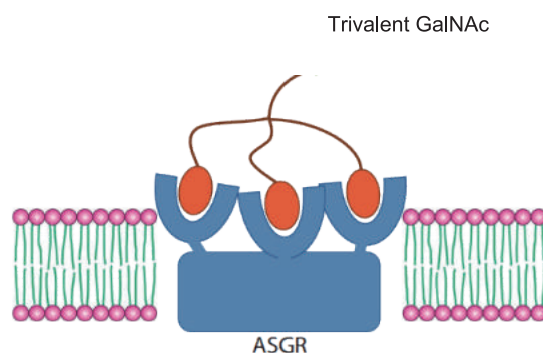
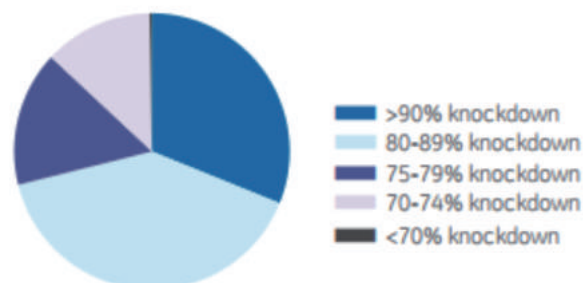
Trivalent GaINAc functionalized oligonucleotides for increased uptake in hepatocytes. Conjugation of N-acetylgalactosamine has become a major clinical strategy for delivery of oligonucleotides to hepatocytes. Creative Biogene provides GaINAc-siRNA/ASO design and synthesis service.



- Scalable and high-quality RNA manufacturing meeting various requirements.
- Both research-grade or GMP-grade RNA oligo can be customized.
- Different scales: from milligram to multi-gram quantities.
- High quality: ISO 9001 certification, comprehensive quality assurance (HPLC/MS/CGE).

Custom siRNA Synthesis, Modification and Conjugation

Creative Biogene's custom siRNA design and synthesis service offers exceptional quality siRNAs to knock down the genes of interest rapidly and efficiently. Our siRNA product and siRNA transfection reagents are guaranteed to silence target gene expression by at least 75% at the mRNA level when used under optimal delivery conditions. Silencing should be monitored at the mRNA level 24-48 hours after transfection using up to 100 nM of siRNA.

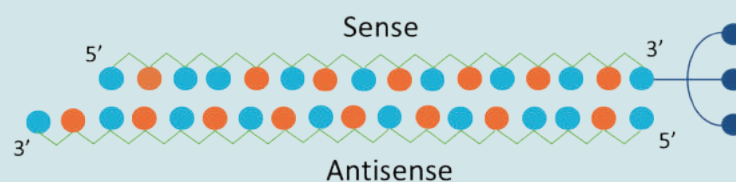


Creative Biogene provides GalNAc conjugated siRNA containing a trivalent GalNAc cluster attached to the 3'-end of the oligonucleotide. These conjugates are available for DNA, 2'-OMe, 2'-MOE, 2'-F, oligonucleotides including the options of phosphodiester or phosphorothioate linkages.

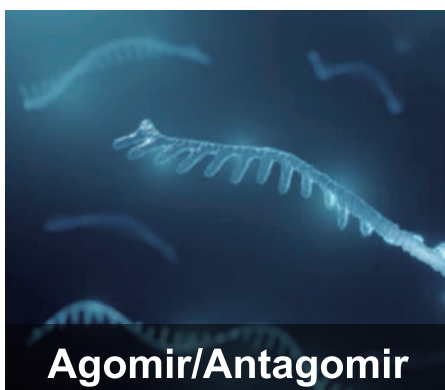
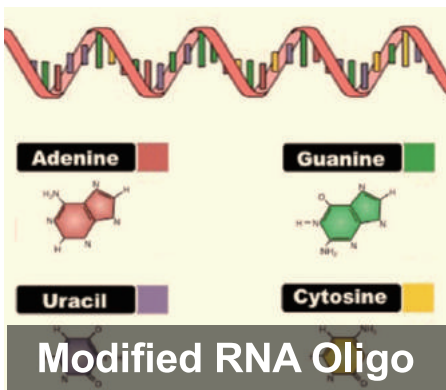
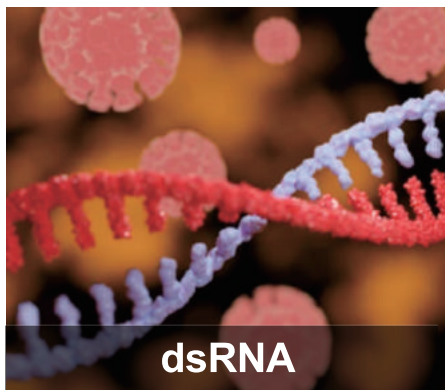
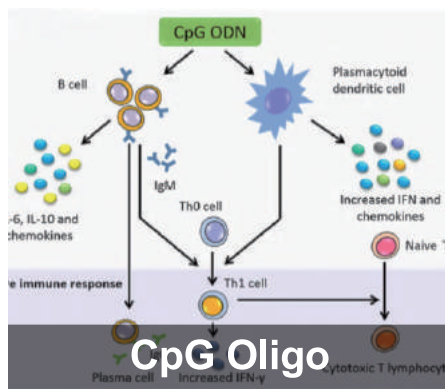
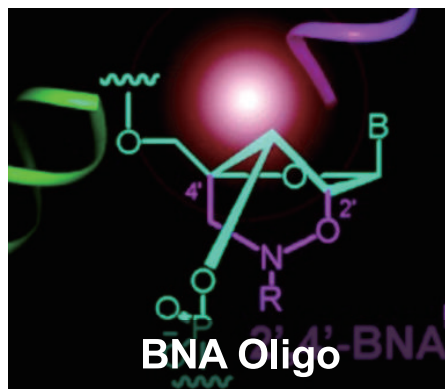
ASO-GalNAc conjugate



siRNA-GalNAc conjugate



Oligonucleotide Synthesis



**Advanced
Technologies**

**Rich
Experience**

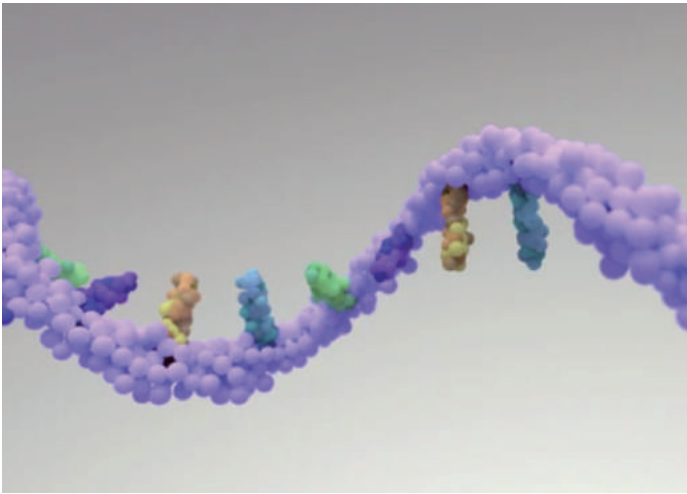
**High
Quality**

**Competitive
Price**

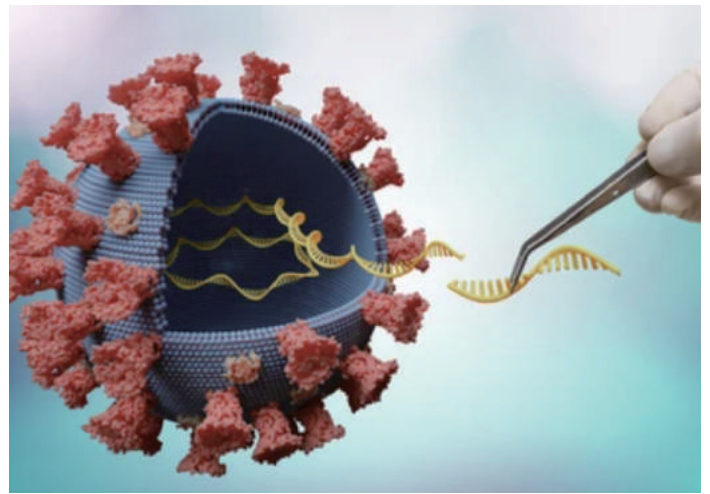
Antisense Oligonucleotide Services

Main Services

ASO Synthesis Service



ASO Specificity Analysis



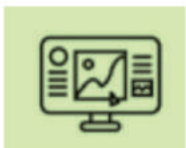
ASO in vitro Screening



ASO in vivo Testing



Features



Advanced
Equipment



Professional
Team



Customized
Service

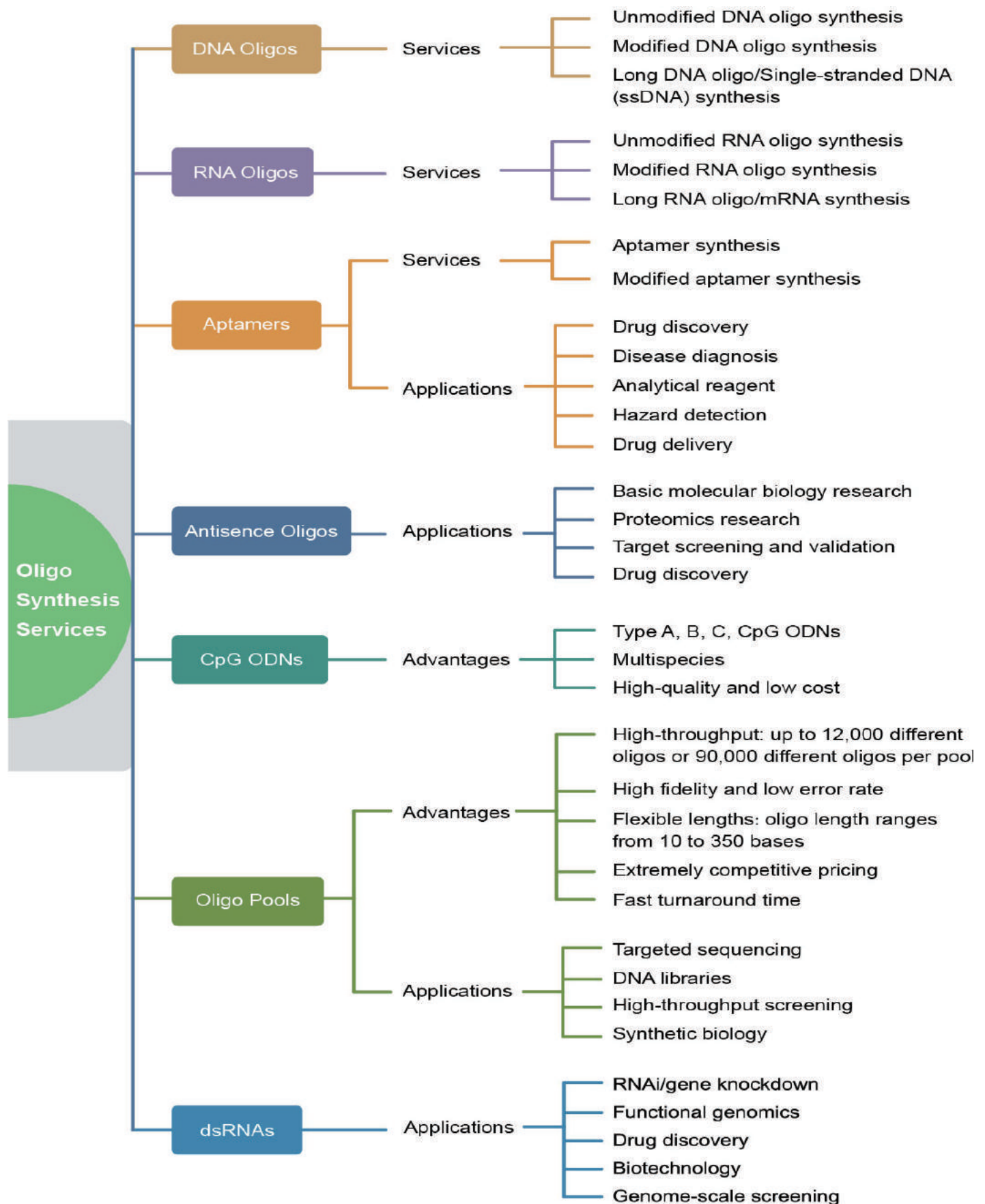


Time
Saving



Quality
Assurance

Oligonucleotide Synthesis Services



Available Modifications

Modifications for Custom DNA Oligos

General Modifications	5' - Phosphate 5' - C6 Amine 5' - C12 Amine 5' - Biotin 5' - Biotin TEG 5' - Thiol C6 5' - Azide	5' - DIG 5' - C3 Spacer 5' - C6 Spacer 5' - C12 Spacer 5' - Spacer 18 5' - Spacer 9 5' - dSpacer	3' - Phosphate 3' - C7 Amine 3' - Biotin 3' - Biotin TEG 3' - Thiol C3 3' - DIG	3' - C3 Spacer 3' - C6 Spacer 3' - C12 Spacer 3' - Spacer 18 3' - Spacer 9 3' - dSpacer	dI dU 5-methylcytosine (m5C) N6-methyladenosine (m6A) Phosphorothioate Internal Amine dT Internal Biotin dT	internal Dig dT Internal C3 Spacer Internal C6 Spacer Internal C12 Spacer Internal Spacer 18 Internal Spacer 9 Internal dSpacer
Fluorophores & Quenchers	5' - Cy3 5' - Cy5 5' - FAM 5' - HEX 5' - TET 5' - FITC 5' - JOE 5' - ROX 5' - Cy3.5 5' - Cy5.5 5' - Cy7	5' - TAMRA 5' - AMCA 5' - Helix Flour555 5' - Helix Flour575 5' - Texas Red 5' - Quasar 570 5' - Quasar 670 5' - LRB Red 5' - R6G 5' - Bodi Fluor R6G 5' - NBD-X 5' - DABCYL	3' - Cy3 3' - Cy5 3' - FAM 3' - HEX 3' - TET 3' - FITC 3' - JOE 3' - ROX 3' - Cy3.5 3' - Cy5.5	3' - Cy7 3' - AMCA 3' - TAMRA 3' - Helix Flour555 3' - Helix Flour575 3' - Texas Red 3' - Quasar 570 3' - Quasar 670 3' - R6G 3' - Bodi Fluor R6G	3' - LRB Red 3' - NBD-X 3' - LC RED 610 3' - LC RED 640 3' - LC RED 705 3' - DABCYL 3' - BHQ 1 3' - BHQ 2 3' - BHQ 3 3' - BHQ 650	Internal Cy3 dT Internal Cy5 dT Internal TAMRA dT Internal ROX dT Internal FAM dT Internal HEX dT Internal TAMRA dT Internal BHQ1 dT Internal BHQ2 dT Internal Ferrocene dT
Dual labeling	5' - FAM_3' - TAMRA 5' - FAM_3' - BHQ 1 5' - FAM_3' - BHQ 2 5' - FAM_3' - DABCYL 5' - Cy3_3' - BHQ 2 5' - Cy3_3' - DABCYL 5' - Cy5_3' - BHQ 2 5' - Cy5_3' - BHQ 3 5' - Cy5_3' - DABCYL	5' - HEX_3' - TAMRA 5' - HEX_3' - BHQ 1 5' - HEX_3' - BHQ 2 5' - HEX_3' - DABCYL 5' - TET_3' - TAMRA 5' - TET_3' - BHQ 1 5' - TET_3' - BHQ 2 5' - TET_3' - DABCYL 5' - ROX_3' - DABCYL	5' - HEX_3' - TAMRA 5' - HEX_3' - BHQ 1 5' - HEX_3' - BHQ 2 5' - HEX_3' - DABCYL 5' - TET_3' - TAMRA 5' - TET_3' - BHQ 1 5' - TET_3' - BHQ 2 5' - TET_3' - DABCYL 5' - ROX_3' - DABCYL	5' - JOE_3' - TAMRA 5' - JOE_3' - BHQ 1 5' - JOE_3' - BHQ 2 5' - JOE_3' - DABCYL 5' - TAMRA_3' - BHQ 2 5' - TAMRA_3' - DABCYL 5' - Texas Red_3' - BHQ 2 5' - Texas Red_3' - DABCYL		

Modifications for Custom RNA Oligos

General Modifications	5' - Phosphate 5' - Amine 5' - Biotin 5' - Thiol 5' - DIG 5' - Azide 5' - DBCO 5' - Cholesterol 5' - Methylene blue	3' - Phosphate 3' - Amine 3' - Biotin 3' - Thiol 3' - Cholesterol 3' - Methylene blue 3' - Inverted dT	Phosphorothioate 2'-OMe 2'-F(N) 5-methyl rC N6-methyladenosine (m6A) U: deoxy-Uridine LNA	Inosine Internal C3 Spacer Internal rSpacer Internal Spacer 18 Chimeric DNA N6-methyl-dA N6-methyl-rA
Fluorophores & Quenchers	5' - Cy3 5' - Cy5 5' - Cy5.5 5' - TAMRA 5' - BHQ 1 5' - BHQ 2 5' - Fluorescein 5' - Texas Red 5' - ROX 5' - Alexa488	3' - Cy3 3' - Cy5 3' - Cy5.5 3' - TAMRA 3' - BHQ 1 3' - BHQ 2 3' - Fluorescein 3' - DABCYL		

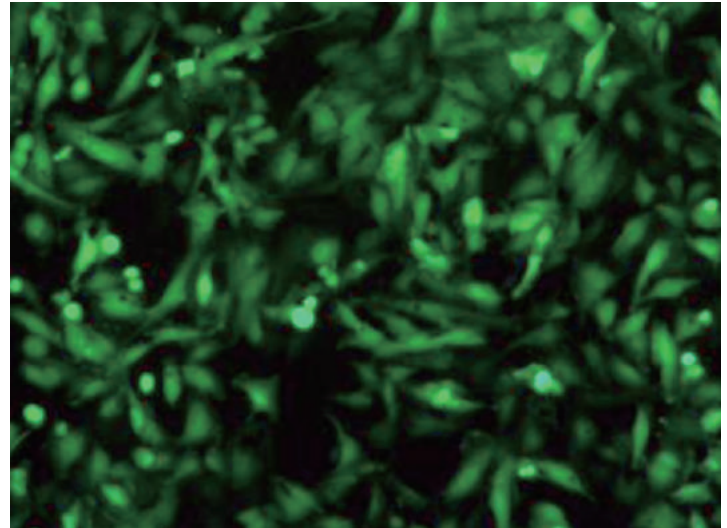
Best-selling Premade mRNAs

Features

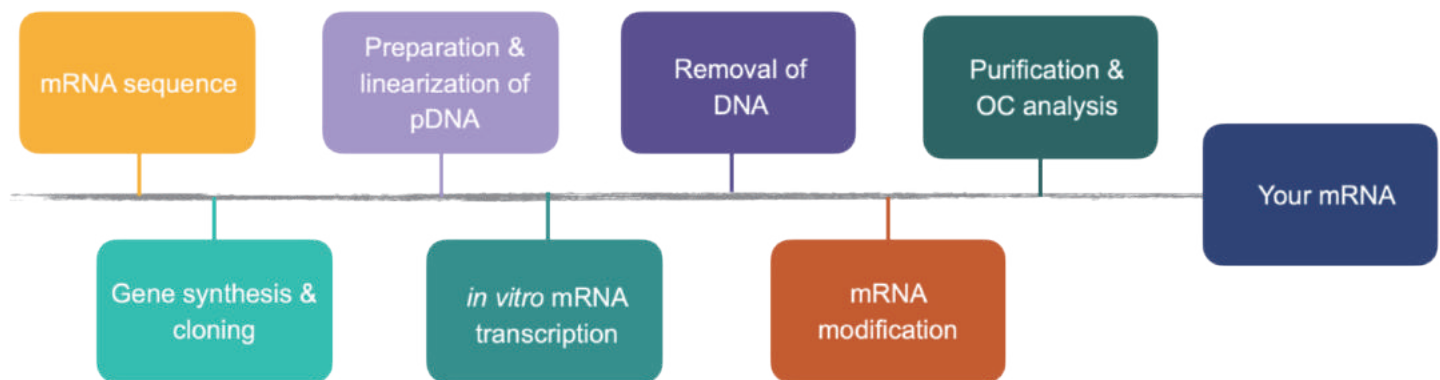
Error-free Synthesis

DNA Template Free

Strict Quality Control



mCherry mRNA in SKOV3 cells



❖ Advantages

Comprehensive products and services

- Custom mRNA synthesis service
- premade mRNA products

❖ - Ready-to-use kits

❖ - Raw materials

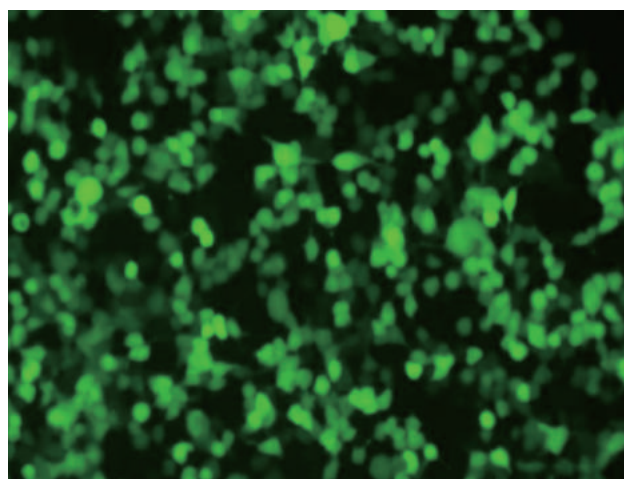
Flexible modifications and labeling

High quality and cost-effective

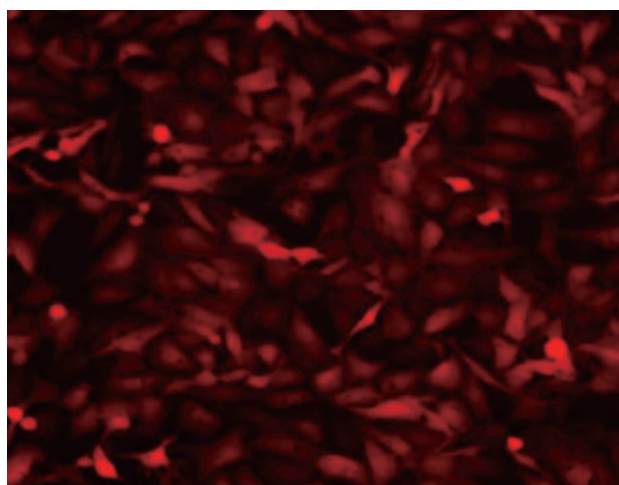
Applications

- In vitro translation
- Antisense RNA and RNAi experiments
- RNA vaccines
- RNA structure and function studies
- Cells reprogramming
- Northern blot

Best-selling Premade mRNAs



GFP mRNA in HEK293T cells



mCherry mRNA in SKOV3 cells

Cat.No.	Product Name
PMRNL-0001	EGFP mRNA (no modification)
PMRNL-0002	EGFP mRNA (N1-Methylpseudo-UTP modified)
PMRNL-0003	Firefly Luciferase mRNA (no modification)
PMRNL-0004	Firefly Luciferase mRNA (N1-Methylpseudo-UTP modified)
PMRNL-0005	mCherry mRNA (no modification)
PMRNL-0006	mCherry mRNA (N1-Methylpseudo-UTP modified)
PMRNL-0007	Cas9-T2A-GFP mRNA (no modification)
PMRNL-0008	Cas9-T2A-GFP mRNA (N1-Methylpseudo-UTP modified)
PMRNL-0009	Cre-T2A-GFP mRNA (no modification)
PMRNL-0010	Cre-T2A-GFP mRNA (N1-Methylpseudo-UTP modified)
PMRNL-0011	β -galactosidase mRNA (no modification)
PMRNL-0012	β -galactosidase mRNA (N1-Methylpseudo-UTP modified)
PMRN-0001	Jellyfish GFP mRNA
PMRN-0002	A. marginale mCherry mRNA
PMRN-0003	Firefly Luciferase mRNA
PMRN-0004	Renilla Luciferase mRNA

Best-selling Kits & Reagents

Cat.No.	Product Name
RSNK-001	T7 High Yield RNA Synthesis Kit
RSNK-002	Poly (A) Tailing Kit
RSNK-003	Fluorescein RNA Labeling Kit (T7)
RSNK-004	Cy3 RNA Labeling Kit (T7)
RSNK-005	Cy5 RNA Labeling Kit (T7)
RSNK-006	All-in-One T7 ARCA mRNA Synthesis Kit
RSNK-007	All-in-One T7 ARCA mRNA Synthesis Kit Plus I
RSNK-008	All-in-One T7 ARCA mRNA Synthesis Kit Plus II
RSNK-009	All-in-One T7 Cap1 (3' OMe) mRNA Synthesis Kit
RSNK-010	All-in-One T7 Cap1 (3' OMe) mRNA Synthesis Kit Plus I
RSNK-011	All-in-One T7 Cap1 (3' OMe) mRNA Synthesis Kit Plus II
RSNK-012	Anti-Reverse Cap Analog (ARCA)
RSNK-013	m7G(5')ppp(5')G Cap Analog
RSNK-014	m7G(5')ppp(5')(2'OMeA)pG Cap Analog
RSNK-015	m7(3'OMeG)(5')ppp(5')(2'OMeA)pG Cap Analog
RSNK-016	m7G(5')ppp(5')(2'OMeG)pG Cap Analog
RSNK-017	m7(3'OMeG)(5')ppp(5')(2'OMeG)pG Cap Analog
RSNK-018	Pseudo-UTP
RSNK-019	5-Methoxy-UTP
RSNK-020	5-Methyl-CTP

RNA synthesis Platform



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