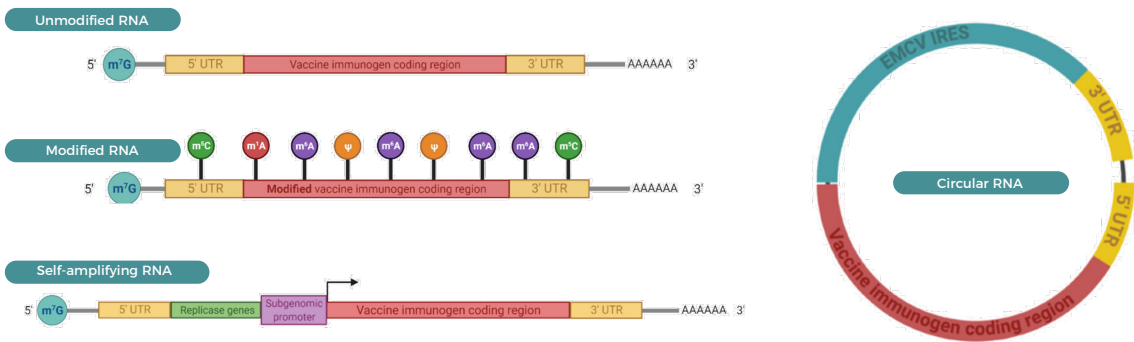


# RNA Synthesis Platform

## Introduction

IntegrateRNA is a leading global provider of life science research, development and manufacturing services. With our advanced instruments, matured SOP processes and experienced technicians, IntegrateRNA is able to guarantee high quality and good homogeneity of RNA products, including mRNA, circular RNA, self-amplifying RNA, dsRNA and RNA oligonucleotide.

## mRNA & circular RNA & Self-amplifying RNA & Long RNA Synthesis Services



## mRNA & circular RNA & Self-amplifying RNA Products

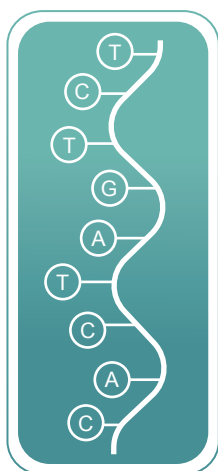
IntegrateRNA offers stocked RNAs expressing reporter genes, antigens for vaccine studies and a model protein (EPO) for protein replacement studies. Our high quality mRNA, circular RNA and long RNA products offer:

- » ISO 9001 certification
- » Custom-tailored support for specific application
- » Fully-traceable documentation and audit trails
- » Comprehensive quality assurance (HPLC/MS/CGE)
- » A wide variety of modification and treatment options
- » A scalable path to pharmaceutical API cGMP manufacturing

mRNA Products		Self-amplifying RNA Products	
Cat#	Product Name	Cat#	Product Name
PMRNL-0002	EGFP mRNA	PMSAR-0001	EGFP saRNA
PMRNL-0004	Firefly Luciferase mRNA	PMSAR-0002	Firefly Luciferase saRNA
PMRNL-0006	mCherry mRNA	PMSAR-0003	Nano Luciferase saRNA
circular RNA Products		Self-amplifying RNA Products	
Cat#	Product Name	Cat#	Product Name
PMCR-0001	EGFP circRNA	PMCRL-0001	EGFP circRNA-LNP
PMCR-0002	Firefly Luciferase circRNA	PMCRL-0002	Fluc circRNA-LNP
PMCR-0003	Gaussia Luciferase circRNA	PMCRL-0003	OVA circRNA-LNP
PMCR-0005	mCherry circRNA	PMCRL-0005	EPO circRNA-LNP
PMCR-0013	OVA circRNA	PMCRL-0013	CD19 car circRNA-LNP
PMCR-0014	EPO circRNA	dsRNA Control Products	
PMCR-0018	HER2 circRNA	Cat#	Product Name
PMCR-0019	p53 circRNA	PDRN-001	dsRNA control
PMCR-0020	PD1 circRNA	PDRN-002	dsRNA control (N1-methylpseudo-UTP version)

# RNA Synthesis Platform

## RNA Oligonucleotide Synthesis Service



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

**Length:** From 5 to 200 mers

**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

**RNA type:** RNA oligo, siRNA, ASO, circRNA, long RNA oligo

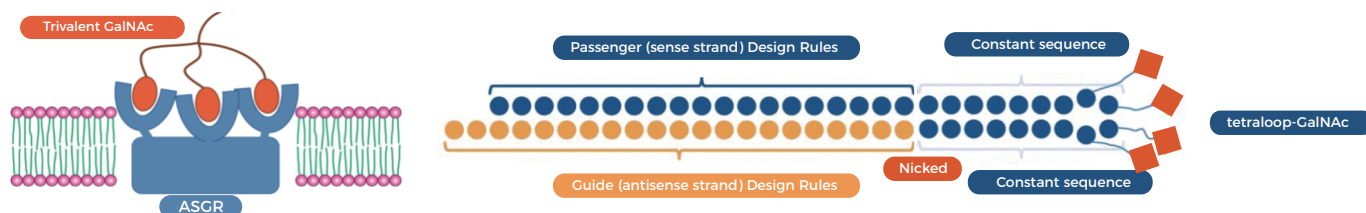
**Base modification:** Rare base, phosphorothioate, modified base, biotin, digoxin, NH<sub>2</sub> modification, SH modification, Spacer etc.

**Fluorescent modification:** Cy3/5, JOE, FAM, HEX, TET, ROX, TAMRA etc.

**Conjugation:** GalNAc, Cholesterol, PEG, Peptide, Antibody, Protein, Folic acid etc.

## Custom GalNAc-siRNA: Trivalent GalNAc & Tetraloop-Structured GalNAc

IntegrateRNA provides siRNA synthesis, modification optimization, activity validation, and high-scale GalNAc-siRNA synthesis services. Based on high throughput screening platform, we offer specific algorithm-based oligonucleotide modification design and modification pattern validation services.



## Custom GalNAc-ASO: MOE & cEt & LNA Gapmer

IntegrateRNA provides GalNAc-conjugated ASO containing a trivalent GalNAc cluster attached to the 3'-end of the oligonucleotide. These conjugates are available for LNA, 2'-OMe, 2'-MOE, 2'-F, UNA, GNA, oligonucleotides including the options of phosphodiester or phosphorothioate linkages.

## Long RNA Oligo Synthesis Service: Up to 200nt RNA oligo

We provide customers with chemical synthesis services for long RNAs up to 120-200 mers in length.

## Competitive Advantages

- 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).