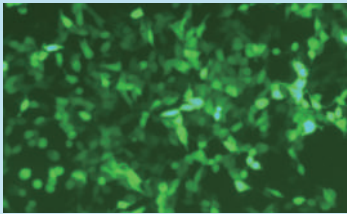


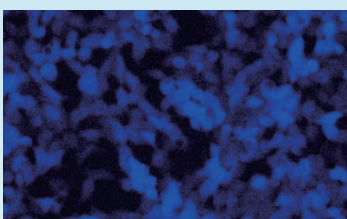
mNeonGreen mRNA



mNeonGreen mRNA encodes a green fluorescent reporter used to track gene expression and monitor cellular processes. It enables rapid, transient expression for visualizing gene activity in live cells. Produced via in vitro transcription with Cap1, a poly(A) tail, and modified nucleotides, it mimics mature mRNA for enhanced stability and reduced immune response.

Figure . 293T cells (0.6×10^6 cells per well, 24-well plate) were transfected with 1 μ g of mNeonGreen mRNA (m1 ψ substitution) using the EndoSafe mRNA Transfection Kit (C15053-K01).

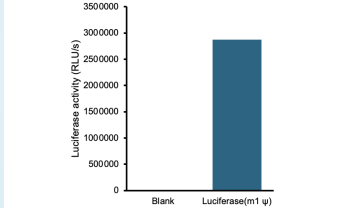
BFP mRNA



BFP mRNA encodes a blue fluorescent protein used to visualize gene expression, track proteins, and support multiplex imaging. It enables rapid, transient expression in live cells, making it useful for applications like cell tracking and gene editing. Produced via in vitro transcription with Cap1, poly(A) tail, and modified nucleotides, it mimics mature mRNA for improved stability and reduced immune response.

Figure . 293T cells (0.4×10^6 cells per well, 24-well plate) were transfected with 1 μ g of BFP mRNA using the EndoSafe mRNA Transfection Kit (C15053-K01).

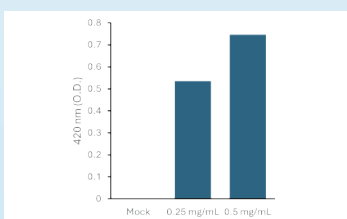
Firefly Luciferase mRNA



Firefly Luciferase mRNA encodes a light-emitting enzyme used for monitoring gene expression, cell viability, and in vivo imaging through bioluminescence. It enables rapid, transient expression in live cells, supporting sensitive detection. Produced via in vitro transcription with Cap 1 and a poly(A) tail, it mimics mature mRNA for enhanced stability and reduced immune activation.

Figure . 293T cells (0.8×10^6 cells per well, 24-well plate) were transfected with 1 μ g of Firefly Luc mRNA using the EndoSafe mRNA Transfection Kit (C15053-K01).

β-galactosidase mRNA



β-Galactosidase is a glycoside hydrolase enzyme that catalyzes the hydrolysis of terminal, non-reducing β-D-galactose residues in β-D-galactosides. The β-D-galactosidase assay is widely used in genetics, molecular biology, and other life science fields. The activity of β-galactosidase can be detected using X-gal, a synthetic substrate that produces a characteristic blue dye upon cleavage by the enzyme.

Figure . 293T cells (0.8×10^6 cells per well, 24-well plate) were transfected with 1 μ g of Firefly Luc mRNA using the EndoSafe mRNA Transfection Kit (C15053-K01).

Cat#	Product	Package
CR00029	tdTomato mRNA (unmodified)	100 μ g\1 mg
CR00028	tdTomato mRNA (m1 ψ substitution)	100 μ g\1 mg
CR00019	mCherry mRNA (unmodified)	100 μ g\1 mg
CR00020	mCherry mRNA (m1 ψ substitution)	100 μ g\1 mg
CR00016	GFP mRNA (unmodified)	100 μ g\1 mg
CR00015	GFP mRNA (m1 ψ substitution)	100 μ g\1 mg
CR00002	EGFP mRNA (unmodified)	100 μ g\1 mg
CR00001	EGFP mRNA (m1 ψ substitution)	100 μ g\1 mg
CR00008	mNeonGreen mRNA (unmodified)	100 μ g\1 mg
CR00007	mNeonGreen mRNA (m1 ψ substitution)	100 μ g\1 mg
CR00023	BFP mRNA (unmodified)	100 μ g\1 mg
CR00022	BFP mRNA (m1 ψ substitution)	100 μ g\1 mg
CR00006	Firefly Luc mRNA (unmodified)	100 μ g\1 mg
CR00003	Firefly Luc mRNA (m1 ψ substitution)	100 μ g\1 mg
CR00034	β-galactosidase mRNA (unmodified)	100 μ g\1 mg
CR00035	β-galactosidase mRNA (m1 ψ substitution)	100 μ g\1 mg

Croyez mRNA Technologies
Powering Next-Generation Research with Self-Amplifying,
Gene Editing Cas9, and Reporter RNA Solutions



Self-Amplifying RNA

Croyez's Self-Amplifying RNA (saRNA) is an advanced RNA-based reporter designed for sustained and robust protein expression in mammalian cells. Built on a replicon backbone with Cap 1 capping and a poly(A) tail, this unmodified-base saRNA—approximately 8.47 kb in length—is optimized for stability and efficient translation.

Application

- In vitro Transcription and Translation** : Drive GFP expression for protein production and assay setup.
- Long-Term Labeling & Tracking** : Monitor cell behavior over 10–24 days with stable fluorescence.
- RNA Delivery System Evaluation** : Assess LNP or electroporation efficiency via saRNA expression.
- Co-expression Imaging** : Assess LNP or electroporation efficiency via saRNA expression.

PRODUCTS

tdTomato Self-Amplifying
RNA /tdTomato saRNA

tdTomato saRNA is a synthetic transcript designed for real-time visualization of gene expression, protein localization, and live-cell imaging. It features a Cap1 structure and poly(A) tail for enhanced stability and translation efficiency. Strong tdTomato expression can be observed for up to 24 days following a single transfection, making it ideal for long-term fluorescence tracking.

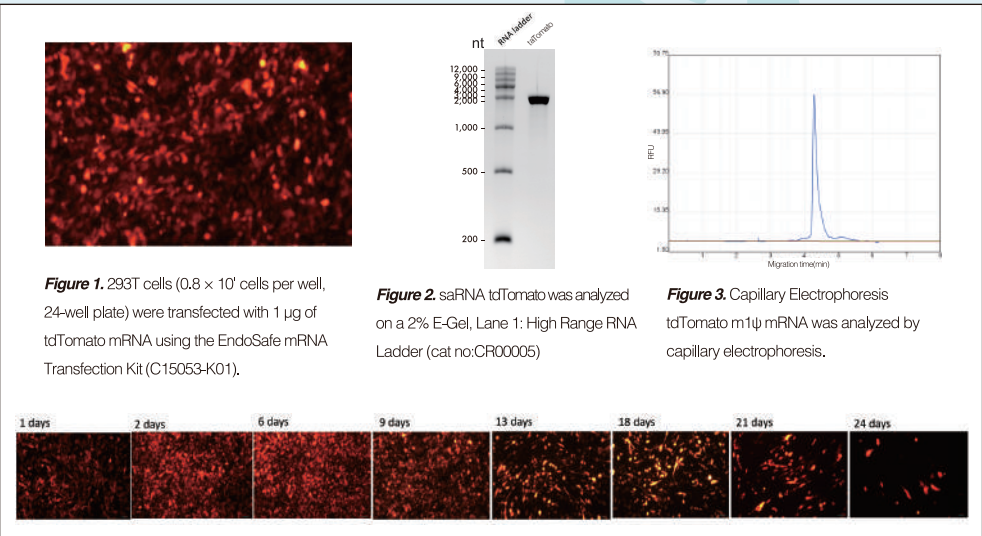


Figure 1. 293T cells (0.8×10^6 cells per well, 24-well plate) were transfected with 1 μ g of tdTomato mRNA using the EndoSafe mRNA Transfection Kit (C15053-K01).

Figure 2. saRNA tdTomato was analyzed on a 2% E-Gel, Lane 1: High Range RNA Ladder (cat no:CR00005)

Figure 3. Capillary Electrophoresis analysis of tdTomato m1 ψ mRNA was analyzed by capillary electrophoresis.

GFP Self-Amplifying
RNA / GFP saRNA

GFP saRNA is a self-amplifying RNA designed for long-term visualization of gene expression, protein localization, and live-cell imaging. Produced via in vitro transcription, it features a Cap1 structure and a poly(A) tail for enhanced stability and expression. Strong GFP signal can be observed for up to 24 days after a single transfection, enabling extended tracking with low RNA input.

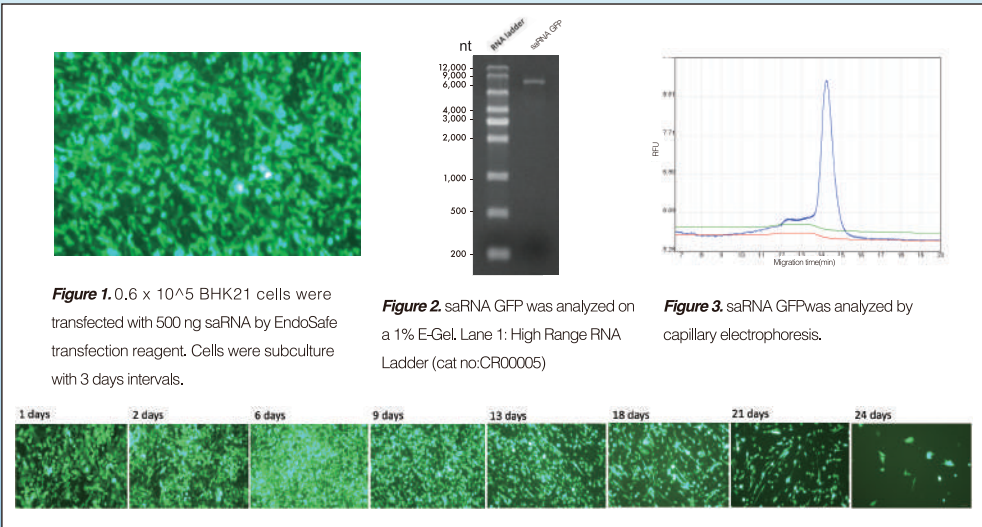


Figure 1. 0.6×10^5 BHK21 cells were transfected with 500 ng saRNA by EndoSafe transfection reagent. Cells were subculture with 3 days intervals.

Figure 2. saRNA GFP was analyzed on a 1% E-Gel, Lane 1: High Range RNA Ladder (cat no:CR00005)

Figure 3. saRNA GFP was analyzed by capillary electrophoresis.

Cat#	Product	Package
CR00033	tdTomato saRNA	100 μ g\1 mg
CR00021	GFP saRNA	100 μ g\1 mg
CR00010	mNeonGreen saRNA (unmodified)	100 μ g\1 mg
CR00009	mNeonGreen saRNA (m1 ψ substitution)	100 μ g\1 mg

Gene Editing mRNA

Croyez offers a full portfolio of ready-to-use gene editing mRNAs including ABEmax, dCas9-KRAB, and hSpCas9. Our mRNAs are in vitro transcribed, purified, and available in unmodified or m1Ψ-modified formats for enhanced expression, reduced immunogenicity, and precise genome engineering applications.

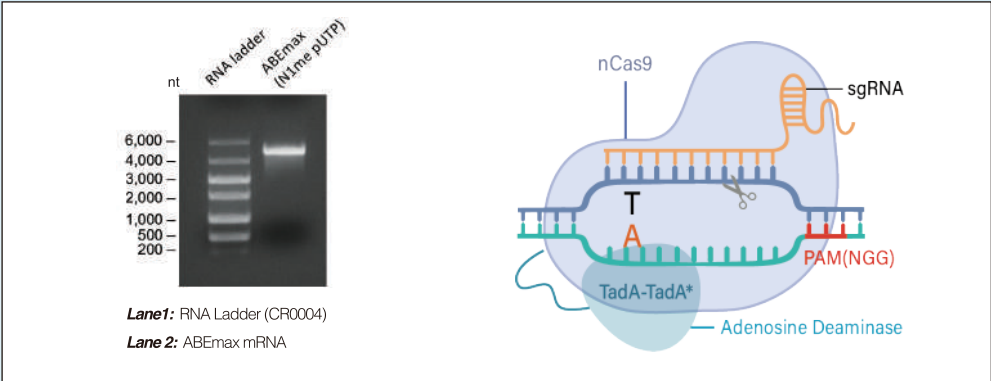
Application

- Versatile genome engineering:** Supports base editing, knockout, knock-in, and gene silencing via Cas9 variants.
- Non-viral, transient delivery:** Ensures safe, episomal expression with minimal integration or immune risk.
- From discovery to therapeutics:** Ideal for functional genomics, disease models, and preclinical workflows.
- Flexible across platforms:** Compatible with electroporation, lipid transfection, or LNP in diverse cell types.

PRODUCTS

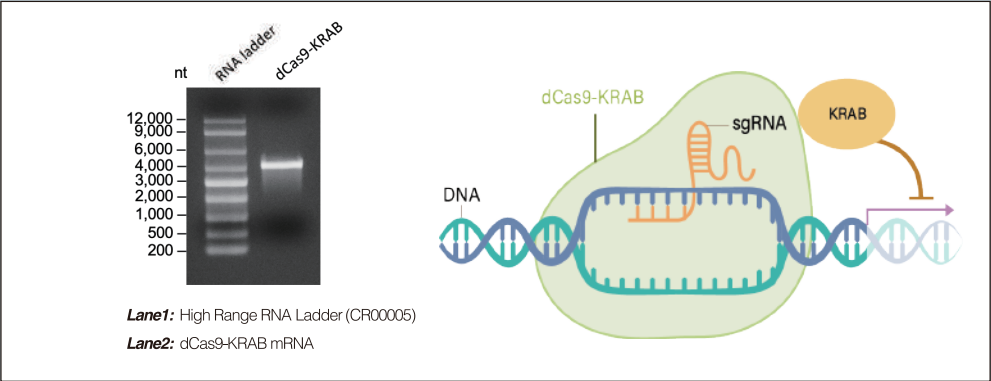
ABEmax mRNA

Croyez’s ABEmax mRNA encodes a next-generation adenine base editor for precise A•T to G•C conversion without double-strand breaks. Delivered in mRNA format with Cap1 and poly(A), it supports high-efficiency, transient editing for gene function, disease modeling, and therapeutic research.



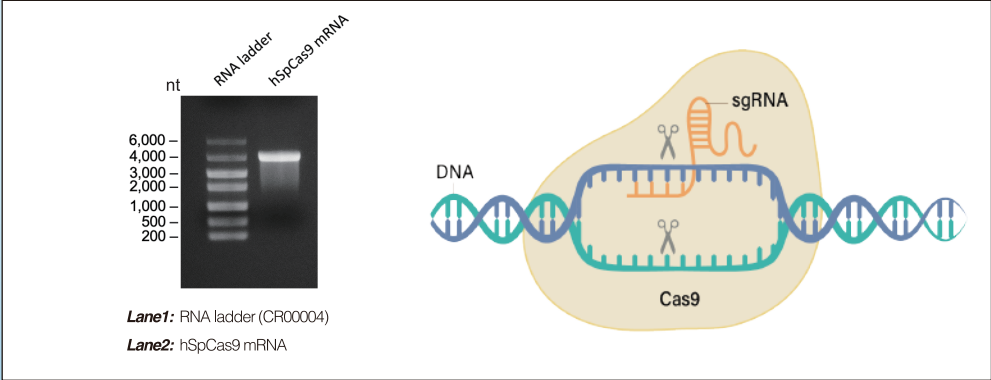
dCas9-KRAB mRNA

Croyez’s dCas9-KRAB mRNA enables targeted gene repression without DNA cleavage. By combining dead Cas9 with the KRAB domain, it silences transcription through epigenetic regulation. Delivered as mRNA with Cap1 and poly(A) tail, it supports transient, efficient expression for studies in gene function and disease modulation.



hSpCas9 mRNA

Croyez’s hSpCas9 mRNA enables precise genome editing through targeted DNA cleavage. Produced via IVT with Cap1, poly(A) tail, and modified nucleotides, it ensures stable, efficient, and transient expression—ideal for research and therapeutic development.



Cat#	Product	Package
CR00013	ABEmax mRNA (unmodified)	100 µg\1 mg
CR00014	ABEmax mRNA (m1Ψ substitution)	100 µg\1 mg
CR00017	dCas9-KRAB mRNA (unmodified)	100 µg\1 mg
CR00018	dCas9-KRAB mRNA (m1Ψ substitution)	100 µg\1 mg
CR00011	hSpCas9 mRNA (unmodified)	100 µg\1 mg
CR00012	hSpCas9 mRNA (m1Ψ substitution)	100 µg\1 mg

Reporter Gene mRNA

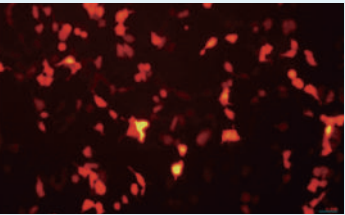
Discover Croyez's sophisticated mRNA products designed for advanced research applications. Our carefully crafted mRNA offerings allow for the monitoring of transfection efficiency and measurement of expression duration in vitro and in vivo. With customization options and advanced modifications to minimize immune responses, Croyez's mRNA products provide innovative solutions for your research needs. Reporter mRNAs from our catalog can be acquired either in their unmodified form or with N1-Methylpseudouridine modifications to reduce innate immune responses, and these variants are also available in bulk quantities.

Application

- In vitro Transcription and Translation :** Efficient production of BFP protein for research use.
- Labeling and Tracking :** Monitor dynamic changes in live cells, such as migration, division, or differentiation.
- Co-expression Studies :** Combine with other fluorescent mRNAs (e.g., GFP) for multicolor imaging and analysis.
- Functional Assays :** Use for RNA delivery into cells via transfection, electroporation, or microinjection..

PRODUCTS

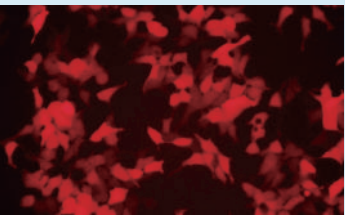
tdTomato mRNA



tdTomato mRNA is a synthetic transcript designed for real-time visualization of gene expression, protein localization, and live-cell imaging. Produced via in vitro transcription, it includes a Cap1 structure and a poly(A) tail to mimic mature mRNA, ensuring enhanced stability and performance in cells.

Figure . 293T cells (0.8 × 10⁴ cells per well, 24-well plate) were transfected with 1 µg of tdTomato mRNA using the EndoSafe mRNA Transfection Kit(C15053-K01).

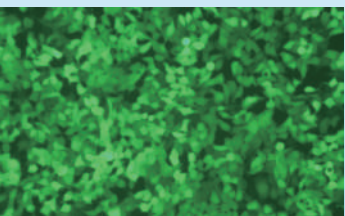
mCherry mRNA



mCherry mRNA encodes a red fluorescent protein with high brightness, stability, and rapid maturation, ideal for tracking gene expression and protein localization in live cells. Synthesized via in vitro transcription with Cap1 and a poly(A) tail, it mimics mature transcripts for enhanced stability and expression.

Figure . 293T cells (0.4 × 10⁴ cells per well, 24-well plate) were transfected with 1 µg of mCherry mRNA using the EndoSafe mRNA Transfection Kit (C15053-K01).

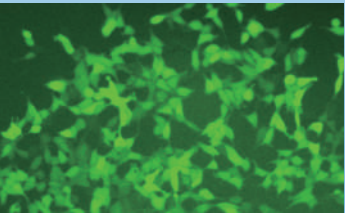
GFP mRNA



GFP mRNA is a common transfection control, enabling rapid, transient expression to track mRNA delivery. It acts as a reporter without nuclear entry, with signal levels reflecting mRNA amount. In vitro transcribed with Cap1, poly(A) tail, and modified nucleotides, it mimics mature mRNA for enhanced stability and reduced immunogenicity.

Figure . 293T cells (0.4 × 10⁴ cells per well, 24-well plate) were transfected with 1 µg of GFP mRNA (m1 Ψ substitution) using the EndoSafe mRNA Transfection Kit (C15053-K01).

EGFP mRNA



EGFP mRNA encodes an enhanced green fluorescent protein commonly used in mammalian cells for direct visualization. It enables rapid, transient expression and emits bright green fluorescence for tracking gene expression or transfection efficiency. Produced via in vitro transcription with Cap1 and a poly(A) tail, it mimics mature mRNA to improve stability and performance.

Figure . 293T cells (0.8 × 10⁴ cells per well, 24-well plate) were transfected with 1 µg of EGFP mRNA (m1 Ψ substitution) using the EndoSafe mRNA Transfection Kit (C15053-K01).