

## Tinzyme Co., Limited

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## eGFP mRNA

**Product Number: M050801** 

### **Shipping and Storage**

-20°C

#### **Components**

Component	M050801	M050801
eGFP mRNA(1mg/ml)	100μg	1mg

#### **Description**

GFP mRNA encodes a green fluorescent protein that can be expressed in mammalian cells. It simulates mature mRNA with a 5'Cap 1 structure and a 3'poly (A) tail, making it an ideal choice for studying transfection and expression using various assays.

This product is a mature mRNA with a 5 'Cap 1 structure and a 3' poly (A) tail synthesized using the T7 High Yield RNA Transcription Kit (E131) and modified with Cap 1 Capping System Kit (CP082) (Figure 1).



Figure 1. eGFP mRNA structure. This image is cited from Gustavo Torres de Souza, Rafaela Chitarra Rodrigues Hell, Jéssica Fernanda Da Silva Souza. Easy In Vitro Synthesis of Optimised Functioning Reporter mRNA from Common eGFP Plasmid. Molecular Biotechnology.

#### **Feature**

- The Cap 1 structure is more suitable for mammalian systems and has higher transcriptional efficiency than the Cap 0 structure (ARCA and m7Cap). The addition of poly (A) tail inhibits RNA mediated innate immune activation, increasing the stability and lifespan of mRNA in vivo and in vitro. Poly (A) also plays an important role in improving the efficiency of translation initiation.
- 2. The experimental method is simple and fast, with stable results and good reproducibility.
- 3. High transfection efficiency.

#### **Application**

- 1. As a reporting material for gene regulation and functional research.
- 2. Suitable for detection of mRNA delivery, translation efficiency, cell viability, and in vivo imaging.

#### **Quality control**

No residual RNA enzyme, single mRNA electrophoresis band, and stable transfection efficiency.

## Related products

Product Number	Product Name
GMP-M062	Vaccinia Capping Enzyme, GMP Grade



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GMP-T701	T7 RNA Polymerase, GMP Grade
GMP-M072	mRNA Cap 2'O Methyltransferase, GMP Grade
GMP-RI01	RNase Inhibitor, GMP Grade
GMP-M012	Poly(A) Polymerase, GMP Grade
GMP-M036	Pyrophosphatase, Inorganic (yeast), GMP Grade (ppase)
GMP-E131	T7 High Yield RNA Transcription kit, GMP Grade