



Luciferase mRNA

Product Number: M050802

Shipping and Storage

-20°C

Component

Component	M050802	M050802
Luciferase mRNA (1mg/ml)	100µg	1mg

Description

Luciferase is a collective term for enzymes in nature that can produce biological fluorescence, with the most representative being luciferase from the body of North American fireflies (*Photonus pyralis*). Firefly luciferase can exhibit luciferase activity without post-translational modification.

This product sequence is derived from the North American firefly (*Photonus pyralis*), and point mutations were performed on the basis of the wild-type sequence, significantly improving the protein's thermal stability and pH range. This product is synthesized using T7 High Yield RNA Transcription Kit (E131) and modified with Cap 1 Capping System Kit (CP082). It is a mature mRNA with a 5' Cap 1 structure and a 3' poly (A) tail. The introduction of Cap1 structure and poly (A) tail structure enhances the stability and translation efficiency of Luciferase mRNA, making it an ideal tool for studying transfection and protein translation.

Features

1. 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 detecting mRNA delivery, translation efficiency, cell viability, etc.

Quality control

There is no residual RNA enzyme, and the mRNA electrophoresis band is single.

Note

The translation and expression of mRNA in vivo are directly related to the amount of mRNA added.

Related products

Product Number	Product Name
M062	Vaccinia Capping Enzyme
TR01	T7 RNA Polymerase
M072	mRNA Cap 2'O Methyltransferase
GMP-RI01	RNase Inhibitor, GMP Grade
M012	Poly(A) Polymerase



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M036

Pyrophosphatase, Inorganic (yeast) (ppase)
