

## Product Data Sheet

### Firefly Luciferase mRNA (ARCA, 5mCTP, $\psi$ UTP)

<b>Modification:</b>	ARCA, 5mCTP, $\psi$ UTP, poly A
<b>Concentration</b>	1 mg/ml
<b>Buffer:</b>	1 mM Sodium Citrate, pH 6.4
<b>Storage:</b>	-40°C or below
<b>Expiration Date:</b>	6 months

#### Description

Firefly Luciferase mRNA (ARCA, 5mCTP,  $\psi$ UTP) expresses luciferase protein which is initially extracted from firefly *Photinus pyralis*. The enzyme catalyzes ATP-dependent D-luciferin oxidation to yield oxyluciferin, a singlet-excited compound that emits light when returning to its ground state. Firefly Luciferase is a frequently used bioluminescent reporter for gene regulation and function study. It is applicable in assays for gene expression, cell viability and in vivo imaging etc. Our Firefly Luciferase mRNA is provided at a concentration of 1mg/ml, it is ARCA capped, polyA-tailed and incorporated with modified nucleotides. The capping of ARCA (anti-reverse cap analog) ensures high translation efficacy, while the addition of 5mCTP/ $\psi$ UTP and poly(A) tail reduces host cell immune response and enhance mRNA stability.

#### Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

**APExBIO Technology**

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