

**Firefly Luc mRNA (m1 $\psi$  substitution)**

v. 240101

<b>Catalog number</b>	CR00003-100UG / CR00003-1MG
<b>Package</b>	100 $\mu$ g / 1 mg
<b>Description</b>	<p>Croyez Firefly Luciferase mRNA (Cap 1, N1-m<math>\psi</math>) expresses luciferase protein derived from the firefly <i>Photinus pyralis</i>. This enzyme facilitates ATP-dependent D-luciferin oxidation, resulting in the production of oxyluciferin—a light-emitting compound upon returning to its ground state. Widely used as a bioluminescent reporter, our mRNA, supplied at 1 mg/ml, features a Cap 1 structure, polyA tail, and modified nucleotides. The Cap 1 structure ensures efficient translation, while the N1-m<math>\psi</math> and poly(A) tail minimize host cell immune response and enhance mRNA stability. Ideal for gene expression assays, cell viability studies, and in vivo imaging, our Firefly Luciferase mRNA is designed for effective and versatile applications in gene regulation research.</p>
<b>mRNA length</b>	2257 nt
<b>Base composition</b>	N1-Me-pUTP (N1-m $\psi$ )
<b>Concentration</b>	1.0 mg/ mL
<b>Cap modification</b>	Cap 1 structure
<b>Poly A tail</b>	Yes
<b>Form</b>	Liquid
<b>Buffer</b>	1 mM sodium citrate buffer, pH 7.5.
<b>Storage</b>	<p>Products can be stored at -80°C or below. We recommend to aliquot the mRNA solution for a better storage. Avoid repeated freeze/thaw cycles.</p>
<b>Shipping</b>	The products are shipped on dry ice and should be avoided for freeze-thaw cycles.
<b>Application</b>	Reporter Genes

*For Research Use Only. Not for use in diagnostic or therapeutic procedures.*