

# PRODUCT INFORMATION



## Cas9 mRNA (Cap-1; mo<sup>5</sup>U)

Item No. 41964

<b>Synonym:</b>	Cas9 mRNA (Cap-1; 5-moUTP)
<b>Supplied as:</b>	1 mM Sodium citrate, pH 6.4
<b>Storage:</b>	-80°C
<b>Stability:</b>	≥6 months
<b>Concentration:</b>	1 mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Description

Cas9 mRNA (Cap-1; mo<sup>5</sup>U) encodes Cas9, a DNA endonuclease that induces breaks in DNA sequences complementary to single-guide RNA (sgRNA) strands and is commonly used for genome editing.<sup>1</sup> It is capped using a co-transcriptional capping method, resulting in the naturally occurring Cap 1 structure with high capping efficiency. Cas9 mRNA is also polyadenylated and modified with 5-methoxy-UTP (mo<sup>5</sup>U) to reduce the host cell immune response and enhance mRNA stability. Encapsulation of Cas9 mRNA (Cap-1; mo<sup>5</sup>U) in lipid nanoparticles (LNPs) can be used for mRNA delivery and expression of Cas9 *in vitro* or *in vivo*.<sup>2</sup>

### References

1. Finn, J.D., Smith, A.R., Patel, M.C., *et al.* A single administration of CRISPR/Cas9 lipid nanoparticles achieves robust and persistent *in vivo* genome editing. *Cell Rep.* **22(9)**, 2227-2235 (2018).
2. Cui, Y.R., Wang, S.J., Ma, T., *et al.* KPT330 improves Cas9 precision genome- and base-editing by selectively regulating mRNA nuclear export. *Commun. Biol.* **5(1)**, 237 (2022).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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