

Cas9 mRNA expresses a version of the *Streptococcus pyogenes* SF370 Cas9 protein (CRISPR Associated Protein 9). Cas9 functions as part of the CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) genome editing system. In the CRISPR system, an RNA guide sequence targets the site of interest and the Cas9 protein is employed to perform double stranded DNA cleavage.

Cas9 mRNA encodes the Cas9 protein with an N and C terminal nuclear localization signal (NLS). The incorporation of two NLS signals within the mRNA increases the frequency of delivery to the nucleus, thus increasing the rate of DNA cleavage. Additionally, a C terminal HA epitope tag aids in detection, isolation, and purification of the Cas9 protein.

L-7606-20 (20 µgrams)
L-7606-100 (100 µgrams)
L-7606-1000 (1 mg)
L-7606-BK (Bulk amount)

1.0 mg/mL in 1 mM Sodium Citrate (pH 6.4)
mRNA Length: 4521 nucleotides

Store at or below -40°C

QC Analysis

Identity and Purity
Agarose Gel Mobility; Pass
Concentration: ± 6%; Pass

Product released by Quality Assurance

¹A standard conversion factor of 40 µg/OD₂₆₀ was used to calculate quantity.

Product Details

This mRNA is capped using CleanCap™, TriLink's proprietary co-transcriptional capping method, which results in the naturally occurring Cap 1 structure with high capping efficiency. It is polyadenylated, and optimized for mammalian systems. It mimics a fully processed mature mRNA.

Handling

Store at or below -40°C. Thaw and work with mRNA on ice. Upon first use, pulse spin before opening and aliquot into single use portions. Do not vortex. Use only certified RNase-free reagents and consumables with proper RNase-free technique. Use of barrier tips is recommended. Avoid freeze/thaw cycles. Do not mix with media containing serum unless first complexed with a stabilizing transfection reagent.

Products containing the CleanCap technology are for research use only. Not for use in diagnostic or therapeutic procedures. Use of CleanCap technology may be covered by one or more patents or pending Patent Applications. www.trilinkbiotech.com/cleancap/license.asp.

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