CleanCap® M6 mCherry mRNA (N1MePsU)

mCherry mRNA
Capped with CleanCap® M6 analog, modified with N1-methylpseudouridine

Catalog # L-8103

Description

mCherry mRNA encodes the fluorescent protein, mCherry, which is derived from DsRed, a protein found in *Discosoma sp*. mCherry is a monomeric fluorophore with a peak absorption at 587 nm and emission at 610 nm. It is stable and resistant to photobleaching.

This mRNA is capped using CleanCap® Reagent M6, TriLink's patented co-transcriptional capping technology, resulting in the naturally occurring Cap-1 structure with >95% capping efficiency. It is polyadenylated, modified with N1-methylpseudouridine, and optimized for mammalian systems. It mimics a fully processed mature mRNA.

CleanCap® Reagent M6, otherwise known as CleanCap® m6AG 3'OMe, produces a base-modified Cap-1 mRNA, which shows superior *in vivo* activity compared to Cap-0 mRNA produced by legacy capping methods such as mCap or anti-reverse cap analog (ARCA). CleanCap® Reagent M6 may further increase protein expression relative to previous generations of cap analogs, such as CleanCap® AG or CleanCap® AG (3'OMe), or mRNAs produced by enzymatic capping strategies[1].

N1-methylpseudouridine is a modified uridine that can reduce immunogenic response and enhance translational efficiency of mRNAs. These properties can result in safer mRNA and increased protein expression.

Full length: 997 nucleotides
ORF Length: 736 nucleotides

ORF sequence available online at trilinkbiotech.com/cleancap-m6-mcherry-mrna-n1mepsu.html

CleanCap® M6 mCherry mRNA (N1MePsU)* may be ordered using the following catalog numbers:

L-8103-100 (100 µg)
L-8103-1000 (1 mg)
L-8103-5 (5 x 1 mg)
L-8103-BK (Bulk amount)

1.0 mg/mL in 1 mM sodium citrate, pH 6.4

Store at or below -40°C.

Use & handling

Store at or below -40°C. Thaw and work 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.

QC analysis

- A260/A280 ratio
- Fragment analyzer
- dsRNA
- Agarose gel mobility
- Concentration
- Capping efficiency

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

Product released by Quality Assurance. TriLink is certified ISO 9001:2015.

Troubleshooting

For any questions or technical support around this product, please reach out to support@trilinkbiotech.com

[1]Final capping is dependent upon the CleanCap® Reagent, DNA template, and final mRNA sequence. Secondary structure due to RNA length and base composition can affect final capping efficiency, mRNA yield, and translation efficiency.

Related TriLink and Alphazyme products

CleanCap® M6 EGFP mRNA (N1MePsU) (cat no. L-8101)*‡
CleanCap® M6 FLuc mRNA (N1MePsU) (cat no. L-8102)*
CleanCap® M6 Cas9 mRNA (N1MePsU) (cat no. L-8106)*§
CleanCap® M6 EPO mRNA (N1MePsU) (cat no. L-8109)*
CleanCap® M6 Cre mRNA (N1MePsU) (cat no. L-8111)*

CleanCap® OVA mRNA (cat no. L-7610)
CleanCap® beta gal mRNA (cat no. L-7608)
CleanCap® Cas9 mRNA (cat no. L-7606)§
CleanCap® FLuc mRNA (cat no. L-7602)
CleanCap® EGFP mRNA (cat no. L-7601)‡

CleanCap® Cre mRNA (5moU) (cat no. L-7211)
CleanCap® OVA mRNA (5moU) (cat no. L-7210)
CleanCap® EPO mRNA (5moU) (cat no. L-7209)
CleanCap® beta gal mRNA (5moU) (cat no. L-7208)
CleanCap® Cas9 Nickase mRNA (5moU) (cat no. L-7207)§
CleanCap® Cas9 mRNA (5moU) (cat no. L-7206)§
CleanCap® Renilla Luc mRNA (5moU) (cat no. L-7204)
CleanCap® mCherry mRNA (5moU) (cat no. L-7203)

CleanCap® Fluc mRNA (5moU) (cat no. L-7202)
CleanCap® EGFP mRNA (5moU) (cat no. L-7201)‡

CleanCap® Reagent M6 (cat. no. N-7453)
CleanCap® Reagent AG (cat. no. N-7113)
CleanCap® Reagent AG (3' OMe) (cat. no. N-7413)
CleanCap® Reagent AU (cat. no. N-7114)

N1-Methylpseudouridine-5'-Triphosphate (cat. No. N-1081)*
5-Methoxyuridine-5'-Triphosphate (cat. no. N-1093)
Pseudouridine-5'-Triphosphate (cat. No. N-1019)
Nucleoside-5'-Triphosphate (NTP) Set (cat. no. N-1505)
Adenosine-5'-Triphosphate, ATP (cat. no. N-1501)
Cytidine-5'-Triphosphate, CTP (cat. no. N-1502)
Guanosine-5'-Triphosphate, GTP (cat. no. N-1503)
Uridine-5'-Triphosphate, UTP (cat. no. N-1504)

T7 RNA Polymerase (Alphazyme cat. No E057)
Inorganic Pyrophosphatase (E. coli) (Alphazyme cat. No E051)
Engineered RNase Inhibitor (Alphazyme cat. No E075)

Related TriLink services

TriLink offers RUO and GMP custom CleanCap® Cap-1 mRNA production services in addition to our catalog mRNA offerings. Visit our website trilinkbiotech.com/mrna-cdmo-services or contact us at mrna-services@trilinkbiotech.com for more information.

CleanCap® products | Research license agreement

trilinkbiotech.com/cleancap-research-license

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