# CleanCap™ Cyanine 5 Fluc mRNA(5moU)

## CleanCap™ Cyanine 5 Firefly Luciferase mRNA (5-methoxyuridine)

Catalog # L-7702

CleanCap™ Cyanine 5 FLuc mRNA is designed for the analysis of mRNA delivery and translation efficiency. The FLuc mRNA will express a luciferase protein, originally isolated from the firefly, *Photinus pyralis*. FLuc is commonly used in mammalian cell culture to measure both gene expression and cell viability. It emits bioluminescence in the presence of the substrate, luciferin. When labeled with cyanine 5, FLuc mRNA can be directly visualized. CleanCap™ Cyanine 5 FLuc mRNA is an ideal molecule to determine mRNA delivery and localization independent of translation.

Cyanine 5 is a synthetic fluorescent dye with maximum excitation and emission wavelengths of 650 nm and 670 nm respectively. TriLink's CleanCap™ Cyanine 5 FLuc mRNA is transcribed with Cyanine 5-UTP:5-Methoxy-UTP at a ratio of 1:3. Substitution in this ratio results in mRNA that is easily visualized and can still be translated in cell culture. Translation efficiency correlates inversely with Cyanine 5-UTP substitution.

This mRNA is capped using CleanCap™, TriLink's proprietary co-transcriptional capping method, which results in the naturally occuring Cap 1 structure with high capping efficiency. It is polyadenylated, modified with 5-methoxyuridine and optimized for mammalian systems. It mimics a fully processed mature mRNA.

L-7702-100 (100 µgrams[1])
L-7702-1000 (1 mg)
L-7702-BK (Bulk amount)

1.0 mg/mL in 1 mM Sodium Citrate, pH 6.4
mRNA Length: 1929 nucleotides

Store at or below -40°C

## QC Analysis

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

Product released by Quality Assurance

[1]A standard conversion factor of 40 µg/$OD_{260}$ was used to calculate quantity.

## Product Details

## 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.