

PRODUCT INFORMATION



EZ Cap™ mCherry mRNA (5mCTP, ψUTP)

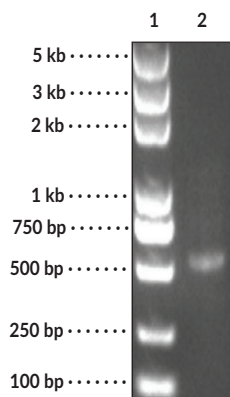
Item No. 39799

Overview and Properties

Amino Acids: 336 translated (996 nucleotides)
Storage: -80°C (as supplied)
Stability: ≥6 months
Supplied in: 1 mM Sodium citrate, pH 6.4
Concentration: 1 mg/ml
Ex./Em. Max: 587/610 nm

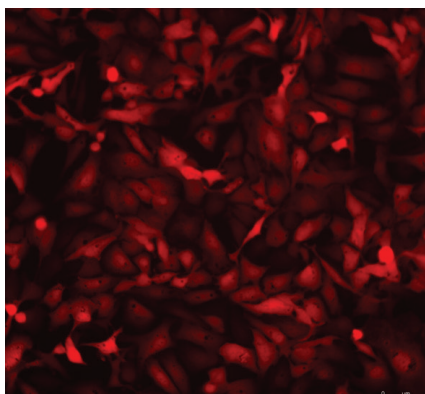
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: mRNA

Analyzed by 1.5% native TAE agarose gel.



mCherry expression in SKov3 cells, 24 hours after transfection.

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

EZ Cap™ mCherry mRNA encodes for mCherry, a red fluorescent protein and derivative of *Discosoma* red fluorescent protein (DsRed) that displays excitation and emission maxima of 587 and 610 nm, respectively.¹ It is capped using a co-transcriptional capping method, resulting in the naturally occurring Cap 1 structure with high capping efficiency. EZ Cap™ mCherry mRNA is also polyadenylated and modified with 5-methylcytidine-5'-triphosphate (5mCTP) and ψ UTP to reduce host cell immune response and enhance mRNA stability. Encapsulation of EZ Cap™ mCherry mRNA (5mCTP, ψ UTP) in lipid nanoparticles (LNPs) can be used for mRNA delivery and expression of mCherry fluorescent protein *in vitro* or *in vivo*.²

References

1. Shaner, N.C., Campbell, R.E., Steinbach, P.A., *et al.* Improved monomeric red, orange and yellow fluorescent proteins derived from *Discosoma* sp. red fluorescent protein. *Comparative Study* **22(12)**, 1567-1572 (2004).
2. Skelton, R., Roach, A.H., Prudhomme, L.E., *et al.* Formulation of lipid-free polymeric mesoscale nanoparticles encapsulating mRNA. *Pharm. Res.* **39(11)**, 2699-2707 (2022).

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