

PRODUCT INFORMATION



EZ Cap™ EGFP mRNA (mo⁵U)

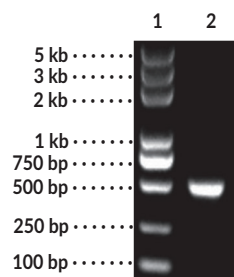
Item No. 39800

Overview and Properties

Synonym:	EZ Cap™ EGFP mRNA (5-moUTP)
Storage:	-80°C (as supplied)
Stability:	≥6 months
Supplied in:	1 mM Sodium citrate, pH 6.4
Concentration:	1 mg/ml
Ex./Em. Max:	489/511 nm

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

Image



Lane 1: Markers
Lane 2: R1016 mRNA

EZ Cap™ EGFP mRNA (mo⁵U) was analyzed by 1.5% native TAE agarose gel.

Description

EZ Cap™ EGFP mRNA encodes for enhanced GFP (EGFP), a variant of *A. victoria* GFP that contains chromophore mutations that increase the sensitivity of the protein and displays excitation and emission maxima of 489 and 511 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™ EGFP mRNA is also polyadenylated and modified with 5-methoxy-UTP (mo⁵U) to inhibit RNA-mediated innate immune activation. Encapsulation of EZ Cap™ EGFP mRNA (mo⁵U) in lipid nanoparticles (LNPs) can be used for mRNA delivery and expression of EGFP *in vitro* or *in vivo*.^{2,3}

References

1. Zhang, G., Gurtu, V., and Kain, S.R. An enhanced green fluorescent protein allows sensitive detection of gene transfer in mammalian cells. *Biochem. Biophys. Res. Commun.* **227**(3), 707-711 (1996).
2. Huang, Y., Yang, M., Wang, N., *et al.* Intracellular delivery of messenger RNA to macrophages with surfactant-derived lipid nanoparticles. *Materials Today Advances* **16**, 100295 (2022).
3. Li, M., Huang, Y., Wu, J., *et al.* A PEG-lipid-free COVID-19 mRNA vaccine triggers robust immune responses in mice. *Mater. Horiz.* **10**(2), 466-472 (2023).

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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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM