

PRODUCT INFORMATION



Mito-EGFP Probe mRNA (Cap-1; m1Ψ)

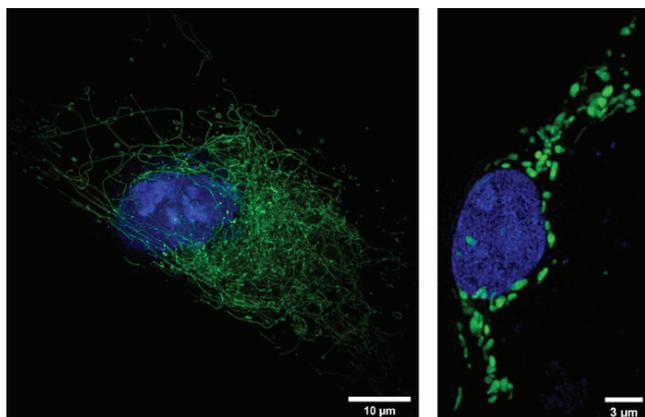
Item No. 43683

Overview and Properties

Synonym:	Mitochondria-EGFP mRNA (Cap-1; N ¹ -Methylpseudouridine)
Storage:	-80°C
Stability:	≥6 months
Supplied in:	1 mM sodium citrate, pH 6.4
Concentration:	1.3 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



Mito-EGFP probe mRNA in cells 24 hours post-transfection. The mitochondria are labeled in green.

Description

Mito-EGFP Probe mRNA (Cap-1; m1Ψ) encodes a fusion protein composed of a mitochondrial targeting sequence (Mito) and 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. Mito-EGFP probe mRNA is also polyadenylated and modified with N¹-methylpseudouridine (m1Ψ) to reduce the host cell immune response and enhance mRNA stability. It can be used in the study of mitochondrial structure and function in live cells. Encapsulation of Mito-EGFP probe mRNA (Cap-1; m1Ψ) in lipid nanoparticles (LNPs) can be used for mRNA delivery and expression of Mito-EGFP.

Reference

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).

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
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