

# PRODUCT INFORMATION



## Lifact-mTurquoise2 Probe mRNA (Cap-1; m1Ψ)

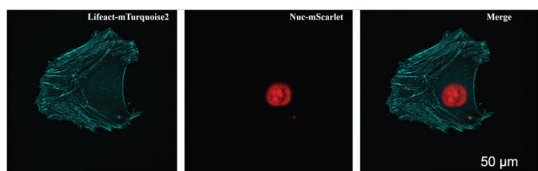
Item No. 43684

### Overview and Properties

<b>Synonyms:</b>	Lifact-mTurquoise2 Probe mRNA (Cap-1; N <sup>1</sup> -Methylpseudouridine)
<b>Storage:</b>	-80°C (as supplied)
<b>Stability:</b>	≥6 months
<b>Supplied in:</b>	1 mM Sodium citrate, pH 6.4
<b>Concentration:</b>	1 mg/ml
<b>Ex./Em. Max:</b>	434/474 nm

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

### Image



Lifact-mTurquoise2 Probe mRNA (Cap-1; m1Ψ) and Nuc-mScarlet Probe mRNA were transfected in cells by Lipo2000. The labeled cytoskeleton (cyan) and nucleus (red) in living cells were detected using super-resolution microscopy post-transfection.

### Description

Lifact-mTurquoise2 probe mRNA (Cap-1; m1Ψ) encodes a fusion protein composed of a Lifact peptide, which selectively binds to actin fibers, and mTurquoise2, a cyan fluorescent protein that displays excitation and emission maxima of 434 and 474 nm, respectively.<sup>1</sup> It is capped using a co-transcriptional capping method, resulting in the naturally occurring Cap-1 structure with high capping efficiency. Lifact-mTurquoise2 probe mRNA is also polyadenylated and modified with N<sup>1</sup>-methylpseudouridine (m1Ψ) to reduce the host cell immune response and enhance mRNA stability. It can be used in the study of actin structure and function in live cells. Encapsulation of Lifact-mTurquoise2 probe mRNA (Cap-1; m1Ψ) in lipid nanoparticles (LNPs) can be used for mRNA delivery and expression of Lifact-mTurquoise2.

### Reference

1. Wang, J., Cao, Z., Zhang, Q., *et al.* mRNA-encoded fluorescent proteins enable superior organelle labeling for live cell imaging. *FASEB J.* **38(23)**, e70244 (2024).

#### 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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