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MMESSAGE mMACHINE™ T7 Tra...



Certificates SDS

Invitrogen™

mMESSAGE mMACHINE™ T7 Transcription Kit

mMESSAGE mMACHINE™ kits are designed for the in vitro synthesis of large amounts of capped RNA. Capped RNA mimics

[Read more](#)

Have Questions? [Contact Us](#)

Quantity:

25 Reactions

Catalog number AM1344	
Price (EUR) / Each	
3,00	

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ThermoFisher
SCIENTIFIC



Quantity: 25 Reactions

Product Overview

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mMESSAGE mMACHINE™ kits are designed for the *in vitro* synthesis of large amounts of capped RNA. Capped RNA mimics most eukaryotic mRNAs found *in vivo*, because it has a 7-methyl guanosine cap structure at the 5' end.

mMESSAGE mMACHINE™ kit reactions include cap analog [$m^7G(5')ppp(5')G$] in an ultra high-yield transcription reaction. The cap analog is incorporated only as the first or 5' terminal G of the transcript because its structure precludes its incorporation at any other position in the RNA molecule.

How mMESSAGE mMACHINE™ kits work

mMESSAGE mMACHINE™ kits have a simplified reaction format in which all four ribonucleotides and cap analog are mixed in a single solution. The cap analog:GTP ratio of this solution is 4:1, which is optimal for maximizing both RNA yield and the proportion of capped transcripts. mMESSAGE mMACHINE™ kits are ideal for the routine synthesis of capped RNAs for oocyte microinjection, *in vitro* translation, transfection, and other applications. The high yields are achieved by optimizing reaction conditions for RNA synthesis in the presence of high nucleotide concentrations. In addition, the RNA synthesized is protected from degradation by any contaminating ribonucleases that may be present with RNase inhibitor—a component of the Enzyme Mix.

Using mMESSAGE mMACHINE™ Kits

In a 20 µL reaction during a 2 hour incubation, mMESSAGE mMACHINE™ High Yield Capped RNA Transcription will yield large mass amounts of capped RNA. Up to 10–50 times the yield obtained with conventional *in vitro* transcription reactions. The ratio of cap analog to GTP has been optimized to allow the best compromise between yield (15–35 µg) and proportion of transcripts that are capped (80%). mMESSAGE mMACHINE™ Kits also contain a LiCl precipitation solution that is efficient for separating proteins and unincorporated nucleotides (including free cap analog) from the capped RNA, allowing an increased efficiency of translation. mMESSAGE mMACHINE™ kits are only optimized for use with the polymerases included in the kit. Using a different polymerase may result in low yields. The mMESSAGE mMACHINE™ kits contain all the buffers and reagents necessary for 25 transcription reactions. Using the control template supplied with the kits (Xenopus elongation factor 1α, pTRI Xef), each mMESSAGE mMACHINE™ reaction will yield approximately 20–30 µg of RNA using T3 or T7 RNA polymerase, or about 15–25 µg RNA using SP6 RNA polymerase.

For Research Use Only. Not for use in diagnostic procedures.

Specifications

Final Product Type	Synthetic mRNA, mRNA
Format	Kit
Sample Type	mRNA, Synthetic mRNA

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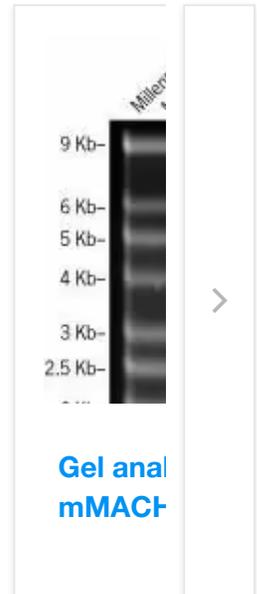
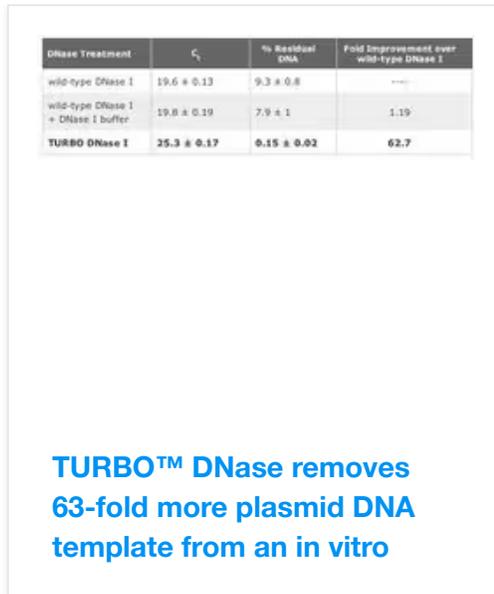
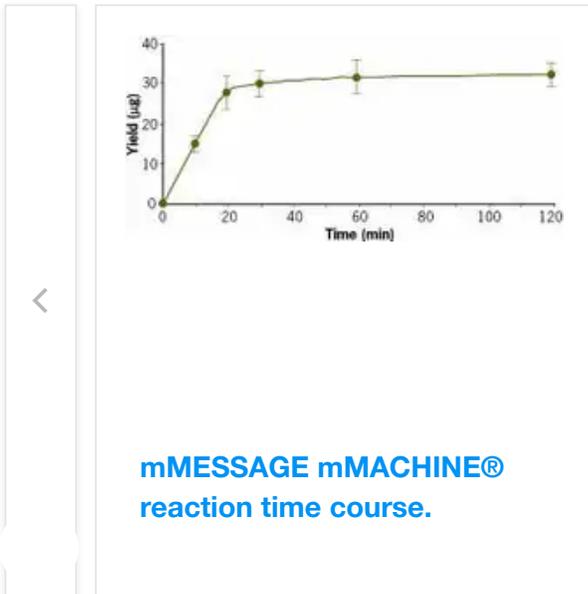


No. of Reactions	25 Reactions
Product Line	Ambion™, mMESSAGE mMACHINE™
Product Type	T7 In Vitro Transcription kit
Quantity	25 Reactions
Promoter	T7
Shipping Condition	Dry Ice
Yield	20-30 µg
Starting Material	PCR Products, Linearized DNA plasmid
Unit Size	Each

Contents & Storage

T7 Enzyme Mix, 10X Reaction Buffer 2XNTP/CAP Solution, GTP Solution, pTRI-Xef, TURBO DNase, Ammonium Acetate Stop Solution, Lithium Chloride Precipitation Solution, and Gel Loading Buffer II are all stored at -20°C. Nuclease-free Water may be stored at any temperature.

Figures



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**mMESSAGE
mMACHINE™ T7 ULTR...**

Catalog number: AM1345

834,00 / Each

[Add to cart](#)

**MEGAscript™ T7
Transcription Kit, 40...**

Catalog number: AM1334

602,00 / Each

[Add to cart](#)

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Documents & Downloads

Certificates

Lot #	Certificate Type	Date	Catalog Number(s)
3162820	Certificate of Analysis	Feb 04, 2025	AM1344
3162706	Certificate of Analysis	Feb 04, 2025	AM1344
3162604	Certificate of Analysis	Feb 04, 2025	AM1344
3162587	Certificate of Analysis	Feb 04, 2025	AM1344
3162569	Certificate of Analysis	Feb 04, 2025	AM1344

Its displayed, search above for a specific certificate

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Product Information

Manuals



 [User Guide: mMESSAGE mMACHINE® Kit - High Yield Capped RNA Transcription Kit](#)

Frequently asked questions (FAQs)

What is the sequence for the pTri-Xef control template that comes with mMESSAGE mMACHINE T7 Transcription Kit (Cat. No. AM1344)?



I am using the mMESSAGE mMACHINE T3 Transcription Kit for in vitro transcription. I ran my reaction product on a denaturing gel and got a smear. Can you offer some advice?

