

# In vitro transcription & mRNA synthesis kits



Superior performance and convenience with NEB's HiScribe T7 mRNA Kits.

## HiScribe™ T7 High Yield RNA Synthesis Kit(#E2040)

Is an extremely flexible system for in vitro transcription of RNA using T7 RNA Polymerase. The kit allows for synthesis many kinds of RNA including internally labeled and cotranscriptionally capped transcripts.

- Each kit can vield up to 9 mg of RNA
- Up to 180 µg of RNA per reaction from 1 µg of control template
- Enables full substitution of NTPs for labeling and incorporation of modified bases
- Linearized control template included for verification of RNA synthesis



50 reactions \$247.80

#### HiScribe™ T7 Quick High Yield RNA Synthesis Kit(#E2050)

Is designed for quick set-up and production of large amounts of RNA in vitro. The reaction can be set up conveniently by combining the NTP buffer mix, T7 RNA Polymerase mix and a suitable DNA template.

- Up to 180 ug of RNA generated per reaction, from 1 µg of control template
- Master mix format reduces pipetting steps while still enabling partial substitution of NTPs for labeling and incorporation of modified bases
- Template removal and RNA purification reagents included



50 reactions **\$302.40** 

### HiScribe™ T7 ARCA mRNA Kit (with tailing) (#E2060)

Is designed for quick production of ARCA capped and poly(A) tailed mRNA in vitro. Capped mRNAs are synthesized by co-transcriptional incorporation of Anti-Reverse Cap Analog (ARCA, NEB #S1411) using T7 RNA Polymerase.

- Generate up to 25 µg of capped and tailed mRNA per reaction
- mRNA capping, DNA removal, mRNA tailing and purification complete in 2 hrs. Competitive products have more pipetting steps and separate components.
- Enables partial incorporation of 5mCTP, Pseudo-UTP and other modified CTP and UTP



20 reactions \$408.80

### HiScribe™ T7 ARCA mRNA Kit (#E2065)

Can be used to synthesize capped and tailed mRNAs. The cap structure is added to the mRNA by co-transcriptional incorporation of Anti-Reverse Cap Analog (ARCA) (NEB #S1411) using T7 RNA Polymerase.

- Generate up to 20 µg of capped mRNA per
- mRNA capping, DNA removal, mRNA tailing and purification complete in 2 hrs. Competitive products have more pipetting steps and separate components.
- ARCA-based capping in correct orientation ensures high translation efficiency

#### HiScribe™ SP6 RNA Synthesis Kit (#E2070)

Is designed for the in vitro transcription of RNA using SP6 RNA Polymerase. This kit is suitable for synthesis of high yield RNA transcripts and for incorporation of cap analogs (not included) or modified nucleotides (not included) to obtain capped, biotin-labeled or dye-labeled RNA.

- Generate over 80 µg RNA per reaction
- Enables full substitution of NTPs for labeling and incorporation of modified hases
- Template removal and mRNA purification reagents included

HiScribe™ T7 mRNA Kit with CleanCap Reagent AG (#E2080)

Is formatted with individual vials of NTPs and CleanCap Reagent AG to allow for partial or complete substitution of modified NTPs, with a total kit yield of 1.8 mg of mRNA. Cap-1 mRNA synthesized from this kit is suitable for many applications, including transfections, microinjections, in vitro translation, preclinical mRNA therapeutic mRNA studies as well as RNA structure and function analysis.

- Generate up to 90 µg of Cap-1 mRNA per reaction from 1 µg of control template
- NTPs are provided separately to enable partial or full substitution of modified
- Template removal and RNA purification reagents included







50 reactions \$344 \$590.80

Ask your Territory Manager about NEB's DNAse I-XT

See other side for recommended HiScribe RNA synthesis kits by application.

\*TERMS & CONDITIONS: Offer valid in Canada only. Expires March 31st, 2023. Discount is eligible for products listed on this flyer. Purchase can be made online at www.neb.ca or through a NEB freezer program. Eligible products get discounted automatically when added to cart. Promotion not valid for cash or cash equivalent towards purchase(s). No substitutions. Offer may not be applied to existing, pending or prior orders. Cannot be combined with any other promotion or discount. One or more of these products are covered by patents, trademarks and/or copyrights owned or controlled by New England Biolabs, Inc. For more information, please email us at qbd@neb.com

> Howard Cukier Ph D Territory Manager, Ontario Cell: (416) 527-2352 hcukier@neb.com



#### **Recommended HiScribe RNA Synthesis Kits by Application**

The HiScribe High Yield RNA Synthesis Kits are ideal for numerous downstream applications. Use the guide below to determine which kit is best suited for your application.

		T7 KITS					SP6 KITS
	APPLICATION	HISCRIBE T7 HIGH YIELD RNA SYNTHESIS KIT (#E2040)	HISCRIBE T7 QUICK HIGH YIELD RNA SYNTHESIS KIT (#E2050)	HISCRIBE T7 ARCA MRNA KIT (#E2065)	HISCRIBE T7 ARCA MRNA KIT (WITH TAILING) (#E2060)	HISCRIBE T7 MRNA KIT WITH CLEANCAP® REAGENT AG (#E2080)	HISCRIBE SP6 RNA Synthesis kit (#E2070)
PROBE LABELING	Fluorescent labeling: FAM, Cyanine (Cy)						
	dyes, etc. • Fluorescent in situ hybridization (FISH)		~				~
	Non-fluorescent labeling: Biotin, Digoxigenin In situ hybridization Blot hybridization with secondary detection Microarray		V				<i>v</i>
	High specific activity radiolabeling  Blot hybridization  RNase protection	~					~
	Streamlined high yield CleanCap Reagent AG capped RNA synthesis Template encoded poly(A) tails Non polyadenylated transcripts Transfection Microinjection In vitro translation					~	
mRNA & RNA FOR Transfection	Streamlined mRNA synthesis with ARCA co-transcriptional capping and enzymatic poly(A) tailing  Transfection  Microinjection  In vitro translation				~		
	Streamlined ARCA capped RNA synthesis Template encoded poly(A) tails Non polyadenylated transcripts Transfection Microinjection In vitro translation			~			
	Co-transcriptional capping with alternate cap analogs  Transfection  Microinjection  In vitro translation		V				V
	Post-transcriptional capping with Vaccinia mRNA Capping System • Transfection • Microinjection • In vitro translation	V	~				V
	Complete substitution of NTPs: 5-mC, pseudouridine, etc. • Post-transcriptional capping with Vaccinia mRNA Capping System	~					V
	Partial substitution of NTPs: 5-mC, pseudouridine, etc.		~	~	~		~
	Unmodified RNA		<b>v</b>				<b>V</b>
	Hairpins, short RNA, dsRNA • Gene knockdown		~				V
STRUCTURE, FUNCTION, & BINDING STUDIES	Complete substitution of NTPs  • Aptamer selection  • Isotopic labeling	V					V
	Partial substitution of one or more NTPs  • Aptamer selection  • Structure determination						~
	Unmodified RNA  SELEX Structure determination		~				~

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