

# Raw materials & Kits for mRNA Synthesis

**Jena, November 5<sup>th</sup> 2019**

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# We offer both raw materials & ready-to-use kits



## Raw Materials for mRNA Synthesis

- Micro to multi-litre solutions
- Custom formulations

### Selection:

- (Un)modified NTPs (e.g. 5-Methoxy-UTP)
- Cap Analogs (e.g. ARCA)
- Proteins (e.g. RNase Inhibitor)



## Kits for mRNA Synthesis

- Ready-to-use
- Convenient assay optimization

### Selection:

- HighYield T7 mRNA Synthesis Kits
- Poly(A) tailing Enzyme Testkit
- Fluorescent & Hapten RNA Labeling Kits

# Raw Material portfolio covers nucleotide analogs and proteins

Category	Product	Purity	Functionality	No detectable activity of		Testing on Endotoxin, BSE/TSE, DNA contamination
				DNase / RNase	Protease	
<b>Unmodified NTPs</b>	ATP, GTP, CTP, UTP	≥ 99% (HPLC)	<i>in vitro</i> transcription	FRET assay	UV-Vis	<i>available upon request</i>
<b>Cap Analoga</b>	m <sup>7,3'-O</sup> GP <sub>3</sub> G (ARCA)	≥ 95% (HPLC-MS)	<i>available upon request</i>	<i>available upon request</i>	<i>available upon request</i>	<i>available upon request</i>
	m <sup>7,3'-O</sup> GP <sub>3</sub> G (2'OMe)					
<b>Modified NTPs</b>	5-Methyl-CTP	≥ 95% (HPLC-MS)	<i>available upon request</i>	<i>available upon request</i>	<i>available upon request</i>	<i>available upon request</i>
	N <sup>4</sup> -Acetyl-CTP					
	Pseudo-UTP					
	N <sup>1</sup> -Methylpseudo-UTP					
	5-Methoxy-UTP					
	2-Thio-UTP					
	N <sup>6</sup> -Methyl-ATP					
<b>Proteins</b>	RNAse inhibitor, recombinant	≥ 95% (SDS-PAGE)	<i>in vitro</i> transcription	FRET assay	UV-Vis	<i>under development</i>
	T7 RNA Polymerase, recombinant					

## Kits allow convenient assay set-up and optimization

Product	Reagents included for ...	Compatible with ...
HighYield T7 RNA Synthesis Kit	Synthesis of unmodified RNA	<ul style="list-style-type: none"> <li>modified NTP incorporation</li> <li>Co- and post-transcriptional capping</li> <li>Enzymatic &amp; template-encoded poly(A) tailing</li> </ul>
HighYield T7 ARCA mRNA Synthesis Kit	Synthesis of ARCA-capped RNA	<ul style="list-style-type: none"> <li>modified NTP incorporation</li> <li>Enzymatic &amp; template-encoded poly(A) tailing</li> </ul>
HighYield T7 ARCA mRNA Synthesis Kit (m <sup>5</sup> CTP/Ψ-UTP)	Synthesis of ARCA-capped, 5-mC & Ψ-U –modified RNA	<ul style="list-style-type: none"> <li>Enzymatic &amp; template-encoded poly(A) tailing</li> </ul>
HighYield T7 mRNA Synthesis Kit (m <sup>5</sup> CTP/Ψ-UTP)	Synthesis of 5-mC & Ψ-U –modified RNA	<ul style="list-style-type: none"> <li>Co- and post-transcriptional capping</li> <li>Enzymatic &amp; template-encoded poly(A) tailing</li> </ul>
Poly(A) tailing Enzyme Testkit	Enzymatic poly(A) tailing with <i>E. coli</i> and Yeast Poly(A) Polymerase	<ul style="list-style-type: none"> <li>HighYield T7 (m)RNA Synthesis Kits</li> </ul>

## Jena Bioscience corporate group is based in Jena



- **Founded in 1998**
- **Manufacturer of cap analogs, modified nucleotides and enzymes**



- **Subsidiary of Jena Bioscience since 2003**
- **Manufacturer of NTP solutions in 100+ L scale (100 mM)**



**Certified according to DIN EN ISO 9001:2015 and DIN EN ISO 14001:2015**