

# HighYield T7 ARCA mRNA Synthesis Kit (m1ATP), S pack

## Synthesis of ARCA-capped & N1-methyladenosine-modified (m)RNA

HighYield T7 ARCA mRNA Synthesis Kit (N1-Methyl-ATP) is designed to produce large amounts of ARCA-capped and N1-methyladenosine-modified (m)RNA via in vitro transcription with T7 RNA polymerase. The resulting 5'-capped and internally modified (m)RNA can subsequently be used for microinjection, transfection or in vitro translation experiments. Anti-reverse cap analog (ARCA, m7,3'-OGpppG)-capped (m)RNA possesses a significantly higher translation efficiency compared to traditional m7GpppG-capped (m)RNA. This is due to 3'-O-methylation of the m7 guanine moiety that allows ARCA incorporation in the correct ("anti-reverse") orientation only resulting in a 100 % translatable capped (m)RNA population. N1-methyladenosine modifications have been shown to increase (m)RNA stability and to reduce immunogenicity. The kit contains sufficient reagents for 15 reactions (S-Pack) or 50 reactions (L-Pack) à 20 µl (6 mM ARCA, 1.5 mM GTP, 7.5 mM UTP, 7.5 mM CTP, 3.75 mM ATP, 3.75 mM N1-Methyl-ATP). An individual optimization of ARCA and N1-Methyl-ATP concentration can easily be achieved with the single nucleotide format. A 20 µl reaction yields about 10-30 µg RNA after 30 min incubation (1 µg T7 control template, 1.4 kb RNA transcript). Yields may however vary depending on the template (promotor design, sequence length, secondary structure formation)).

## Ordering Information

[Order Online »](#)

JBS-RNT-121-S	15Reactions
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## Manuals, SDS & CofA

[View Online »](#)

## Handling & Storage

Long Term Storage      -20°C

Shipping                      Blue Ice

**Regulatory Status**      RUO - Research Use Only

## Product Details

**Technical Info / Product**      For the Original Manufacturer's data sheet please [click here](#).

**Notes**



ENZO LIFE SCIENCES,  
INC.  
Phone: 800.942.0430  
[info-  
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office  
ENZO LIFE SCIENCES  
(ELS) AG  
Phone: +41 61 926 8989  
[info-  
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands  
& Luxembourg  
Phone: +32 3 466 0420  
[info-  
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France  
Phone: +33 472 440 655  
[info-  
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany  
Phone: +49 7621 5500 526  
[info-  
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland  
Phone (UK customers):  
0845 601 1488  
Phone: +44 1392 825900  
[info-  
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)