

# HighYield T7 ARCA mRNA Synthesis Kit (me1Ψ-UTP), S pack

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

HighYield T7 ARCA mRNA Synthesis Kit (me1Ψ-UTP) is designed to produce large amounts of ARCA-capped and N1-Methylpseudouridine-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-Methylpseudouridine 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 N1-Methylpseudo-UTP, 7.5 mM ATP, 7.5 mM CTP). An individual optimization of ARCA and N1-Methylpseudo-UTP concentration can easily be achieved with the single nucleotide format. A 20 µl reaction yields about 30-50 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-115-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**



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