

Reduce immune response with Ψ -RNA synthesis using SP6 RNA polymerase

INCOGNITO™ SP6 Ψ -RNA Transcription Kit

Product Intro

The INCOGNITO™ SP6 Ψ -RNA Transcription Kit is optimized for high-yield synthesis of pseudouridine-containing, *in vitro* transcribed RNA (Ψ -RNA). This kit produces up to 60 μ g of Ψ -RNA from 1 μ g of DNA template in two hours, and reactions can be easily scaled up to produce milligram amounts of Ψ -RNA. Ψ -mRNAs induce lower innate immune responses in mammalian cells, making them beneficial for various applications.

Benefits

- **Lower immunogenicity:** Synthesized transcripts include Ψ TP for reduced immune response.
- **Compatible with SP6 polymerase:** Yield up to 60 μ g of Ψ -RNA using SP6 RNA polymerase.
- **Scalable:** The standard reaction can be scaled up to produce milligram amounts of Ψ -RNA.

Product Description

The [INCOGNITO™ SP6 \$\Psi\$ -RNA Transcription Kit](#) is designed for high-yield synthesis of pseudouridine-containing RNA (Ψ -RNA) from an *in vitro* transcription (IVT) reaction. A standard two-hour, 20 μ l reaction can yield up to 60 μ g of Ψ -RNA from 1 μ g of DNA template thanks to the high-performance SP6-Scribe™ enzyme. The reaction can be scaled up to produce milligram amounts of RNA with canonical nucleotides ATP, CTP, GTP, and the modified nucleotide pseudouridine-5'-triphosphate (Ψ TP). Modified Ψ -mRNAs translate into higher protein levels and induce lower innate immune responses in mammalian cells expressing various RNA sensors compared to unmodified mRNAs. INCOGNITO™ SP6 IVT Ψ -RNA can be further processed into mRNA (5'-capped and 3'-poly[A] tailed) using [ScriptCap™ Cap 1 Capping System](#) (contains both [ScriptCap™ Capping Enzyme](#) and [2'-O-Methyltransferase](#)) and [A-Plus™ Poly\(A\) Polymerase Tailing Kit](#), available separately.

Product Performance

The INCOGNITO™ SP6 Ψ -RNA Transcription Kit is functionally tested under standard reaction conditions using the SP6 Control Template DNA. The kit must produce at least 50 μ g of RNA from 1 μ g of the SP6 Control Template DNA in two hours at 37°C.

The recommended reaction conditions should give excellent yields of RNA with most templates. However, the yield may be improved for some templates by extending the reaction time (e.g., to four hours), increasing the amount of template in the reaction, or increasing the reaction temperature from 37°C to 42°C.

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Ordering information

Catalog Number	Description
C-ICSY110510	INCOGNITO™ SP6 Ψ -RNA Transcription Kit (10 reactions)

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