

Increase Ψ -RNA yields and minimize immune responses in just one hour

INCOGNITO™ T7-FlashScribe™ Ψ -RNA Transcription Kit

Product Intro

The INCOGNITO™ T7-FlashScribe™ Ψ -RNA Transcription Kit is specially formulated to achieve maximum yields of pseudouridine-containing, *in vitro* transcribed RNA (Ψ -RNA). A reaction yields up to 160 μ g of Ψ -RNA from 1 μ g of DNA template in one hour and can be easily scaled up to produce milligram amounts. Ψ -mRNAs induce lower innate immune responses in mammalian cells that express various RNA sensors compared to unmodified mRNAs.

Benefits

- **Maximum yield:** Yield up to 160 μ g of Ψ -RNA from 1 μ g of DNA template.
- **Quick workflow:** Generate Ψ -RNA in just one hour.
- **Reduced immune response:** Ψ -mRNAs yield higher protein levels with lower immunogenicity.
- **Scalable:** Reactions can be scaled up to produce milligram quantities of Ψ -RNA.

Product Description

The [INCOGNITO™ T7-FlashScribe™ \$\Psi\$ -RNA Transcription Kit](#) is designed to maximize yields of pseudouridine-containing RNA (Ψ -RNA) from *in vitro* transcription (IVT) reactions. While yields may vary depending on the DNA template and other factors, a standard 60-minute, 20 μ l reaction can produce up to 160 μ g of Ψ -RNA from 1 μ g of DNA template. These impressive yields are due to the high-performance properties of the T7-FlashScribe™ enzyme. The standard reaction can be scaled up to generate milligram amounts of RNA containing the canonical nucleotides ATP, CTP, GTP, and the modified nucleotide pseudouridine-5'-triphosphate (Ψ TP). Ψ -mRNAs are translated into protein at higher levels and induce lower innate immune responses in mammalian cells compared to unmodified mRNAs. The INCOGNITO™ Ψ -RNA can be further processed into mRNA 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™ T7-FlashScribe™ Ψ -RNA Transcription Kit is functionally tested under standard reaction conditions using the T7 Control Template DNA. The kit must produce at least 120 μ g of RNA from 1 μ g of the T7 Control Template DNA in 60 minutes at 37°C.

The standard 20 μ l, 60-minute reaction was optimized for transcription using 1 μ g of linearized DNA template. However, incubation times can be adjusted if desired. Table 1 summarizes results with 1 μ g of the control template DNA in a standard reaction with incubation times from 20-120 minutes. Results may vary depending on the template used.

Table 1. IVT RNA yields from INCOGNITO™ T7-FlashScribe™ Ψ -RNA Transcription Kit reactions incubated between 20-120 minutes. The standard protocol uses an incubation time of 60 minutes.

Incubation Time (minutes)	20	30	60	90	120
RNA yield (μ g)	55-92	102-128	150-190	150-205	152-208

Ordering information

Catalog Number	Description
IFY240525	INCOGNITO™ T7-FlashScribe™ Ψ -RNA Transcription Kit (25 reactions)

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