HighYield T7 RNA Crosslinking Kit (4-Thio-UTP)

Synthesis of 4-Thio-modified RNA

HighYield T7 RNA Crosslinking Kit (4-Thio-UTP) is designed to produce randomly 4-Thio-modified RNA probes via in vitro transcription. Such probes are ideally suited for the detection of RNA-Protein interactions by photocrosslinking. The photoreactive Thio group triggers the formation of a covalent bond between the RNA and closely interacting proteins upon UV irradiation. 4-Thio-UTP is efficiently incorporated into RNA as substitute for its natural counterpart UTP using an optimized reaction buffer and T7 RNA Labeling Polymerase Mix. 80 % 4-Thio-UTP substitution typically results in an optimal balance between reaction and labeling efficiency. Individual optimization of 4-Thio-UTP/UTP ratio however, can easily be achieved with the single nucleotide format. The resulting 4-Thio-modified RNA probe can be used for photocrosslinking experiments using a 365 nm UV light. The kit contains sufficient reagents for 15 labeling reactions of 20 µl each (100 % 4-Thio-UTP substitution, 7.5 mM ATP, 7.5 mM GTP, 7.5 mM CTP,7.5 mM 4-Thio-UTP). A 20 µl reaction with 100 % substitution yields about 10 µg RNA, with 80 % substitution about 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-135	15Reactions

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 Notes	For the Original Manufacturer's data sheet please click here.

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