

Sulfo-Cyanine3 UTP Catalog ID: 210016

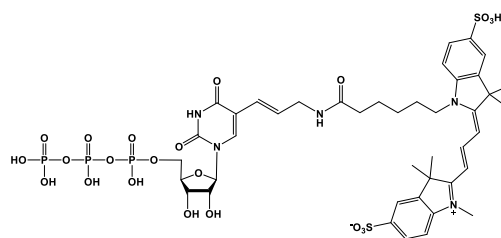
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Description

Sulfo-Cyanine3 UTP can be used as a substitute for UTP as a substrate for T7 RNA polymerase, enabling the production of labeled probes via in vitro transcription. It has excitation and emission maxima at 550 nm and 570 nm, respectively. The Sulfo-Cyanine3 dye imparts fluorescent properties to the UTP molecule, allowing Sulfo-Cyanine3 UTP to be incorporated into RNA molecules through RNA polymerase-catalyzed transcription reactions. This enables researchers to track RNA distribution, localization, and dynamics. mRNA labeled with Sulfo-Cyanine3 UTP is easily visible under UV light and eliminates the need for additional staining after gel electrophoresis. Additionally, Sulfo-Cyanine3 UTP is suitable for single-molecule fluorescence resonance energy transfer (FRET) measurements, facilitating real-time monitoring of the co-transcriptional folding of RNA molecules [4]. This product is supplied as a 10 mM aqueous solution.

Chemical Properties

CAS number	NA
Formula	C ₄₂ H ₅₄ N ₅ O ₂₂ P ₃ S ₂
Molecular Weight	1137.95
Concentration	10.0 mM
Solvent	10 mM Tris-HCl, pH 7.6, 1.0 mM EDTA
HPLC Purity	≥95%
λ _{abs} (nm)	550
λ _{fl} (nm)	568
ε _{max} (M ⁻¹ cm ⁻¹)	1.5×10 ⁵



Storage

Upon receipt, store at -20°C in the dark. Protect from light and moisture. When stored as indicated, Sulfo-Cyanine3 UTP is stable for 1 year.

This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use

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