

Pseudo-UTP

Catalog Number	Packaging Size
LP010-1	10 μL
LP010-2	50 μL
LP010-3	100 μL

Storage upon receipt: -20°C

Pseudo-UTP (**Pseudouridine-5'-Triphosphate**) is one of the most commonly used modified nucleoside-5'-O-triphosphates. Pseudo-UTP is a building block for the polymerase-mediated synthesis of RNA molecules. RNA molecules, especially messenger RNAs (mRNAs), have widespread applications in therapeutic and diagnostic areas, and have demonstrated their superiority over plasmid DNA techniques in both gene and vaccination therapy. Compared with uridine-containing unmodified mRNAs, the application of pseudouridine-containing modified mRNAs exhibits better nuclease stability, immunogenicity, and translational properties. Thus, pseudo-UTP could be used to develop drugable mRNAs with improved properties, by replacing the standard bases by modified ones.

Reference:

1. Shanmugasundaram M, Senthilvelan A, Kore AR. Gram-scale chemical synthesis of base-modified ribonucleoside-5'-O-triphosphates. Current Protocols in Nucleic Acid Chemistry, 2016, 67: 13.15.1-13.15.10.

For research use only.



Technical Information

Formal Name:	Pseudouridine-5'-Triphosphate
CAS Number:	1175-34-4 (free acid)
Molecular Formula:	C ₉ H ₁₅ N ₂ O ₁₅ P ₃ (free acid)
Molecular Weight:	483.97 (free acid)
Purity:	>95% (HPLC)
Extinction Coefficient:	7,550 Lmol ⁻¹ cm ⁻¹ at 262 nm
Salt Form:	Na ⁺
Concentration:	100 mM in H ₂ O
Storage Condition:	-20°C
Shipping Condition:	Ice packs