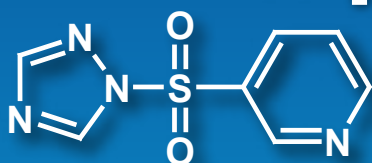


New

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# RNA Structure Analysis Reagent that Sulfonylates the 2'-OH Group of RNA and is Stable in Aqueous Solvents



P3S

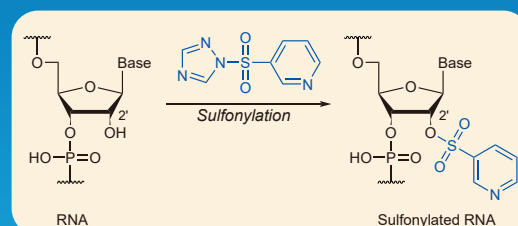
50mg / 250mg / 1g

[P3153]

The SHAPE reagent (Selective 2'-Hydroxyl Acylation and Primer Extension reagent), which has been employed for the analysis of RNA structural characteristics by the acylation of 2'-OH groups, is distinguished by its low stability in water and a relatively short half-life. In contrast, P3S, which sulfonylates 2'-OH groups, is a highly stable RNA structural mapping reagent in water.

## Advantages

- Sulfonylates the 2'-OH group of ribonucleotides in unpaired regions of RNA
- Fully soluble in aqueous solvents and has a long half-life
- Exhibits a different modification pattern than SHAPE reagents



## Application : Structural mapping of human 5S rRNA in HeLa cells using P3S

Figure 1

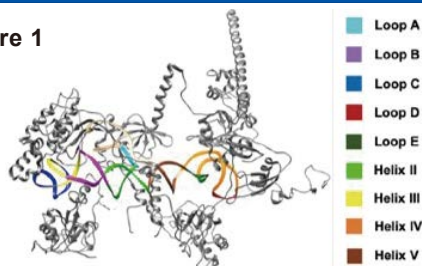


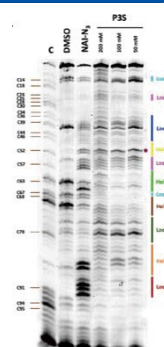
Figure 1. Structure of human 5S rRNA with interacting ribosomal proteins

Figure 2. In vivo structural probing of human 5S rRNA after HeLa cells were treated with P3S (200 mM, 100 mM, 50 mM) for 1 hour or with NAI-N3 (100 mM) for 25 minutes, at 37°C.

(These figures are taken from the following reference (CC BY 4.0). For further details, please see the reference.)

Reference S. Chatterjee, R. Shioi, E. T. Kool, *ACS Cent. Sci.* **2023**, 9, 531. <https://doi.org/10.1021/acscentsci.2c01237>

Figure 2



## Related Products

**N-Methylisatoic Anhydride (= NMIA)**

**1-Methyl-7-nitroisatoic Anhydride (= 1M7)**

**1-Methyl-6-nitroisatoic Anhydride (= 1M6)**

**5-Nitroisatoic Anhydride (= 5NIA)**

**Benzoyl Cyanide (= BzCN)**

**N-Acetylimidazole (= AcIm)**

5g / 25g [M0743]

100mg [M3578]

100mg [M3589]

1g [N1245]

25g [B0835]

25g [A0694]

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