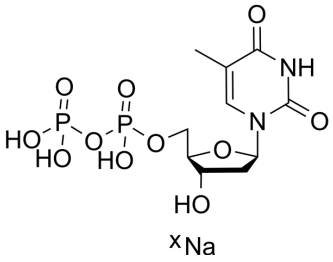
Thymidine 5′-diphosphate sodium

Cat. No.:	HY-131576A
CAS No.:	108322-12-9
Molecular Formula:	$C_{10}H_{16}N_2O_{11}P_2.xNa$
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro	H_2O : 125 mg/mL (Need ultrasonic)

BIOLOGICAL ACTIVITY

Description	Thymidine 5′-diphosphate (dTDP) sodium is the key product of pyrimidine synthesis in organisms. Thymidine 5′-diphosphate sodium is produced by thymidylate kinase (TMPK) catalyzed phosphorylation of 5′-thymidine monophosphate (dTMP), which requires ATP and Mg^{2+}. Thymidine 5′-diphosphate sodium is further catalyzed by TMPK to thymidine 5′-triphosphate (dTTP). TMPK activity can be detected by measuring the level of Thymidine 5′-diphosphate[1][2].

REFERENCES

[1]. Cui Q, et al. Thymidylate kinase: an old topic brings new perspectives. Curr Med Chem. 2013;20(10):1286-305.

[2]. Tzeng HF, et al. Simultaneous determination of thymidylate and thymidine diphosphate by capillary electrophoresis as a rapid monitoring tool for thymidine kinase and thymidylate kinase activities. Electrophoresis. 2005 Jun;26(11):2225-30.

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