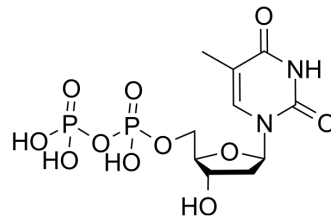


## Thymidine 5'-diphosphate

<b>Cat. No.:</b>	HY-131576
<b>CAS No.:</b>	491-97-4
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>11</sub> P <sub>2</sub>
<b>Molecular Weight:</b>	402.19
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Thymidine 5'-diphosphate (dTDP) is the key product of pyrimidine synthesis in organisms. Thymidine 5'-diphosphate is produced by thymidylate kinase (TMPK) catalyzed phosphorylation of 5'-thymidine monophosphate (dTMP), which requires ATP and Mg <sup>2+</sup> . Thymidine 5'-diphosphate is further catalyzed by TMPK to thymidine 5'-triphosphate (dTTP). TMPK activity can be detected by measuring the level of Thymidine 5'-diphosphate <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite

### 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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA